

**TRANSMITTAL LETTER TO THE
UNITED STATES RECEIVING OFFICE**

Date	01 September 2000
International Application	PCT/US 00/23974
Attorney Docket No.	032657-002

I. Certification under 37 CFR 1.10 (if applicable)

Express Mail mailing number

Date of Deposit

I hereby certify that the application/correspondence attached hereto is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10 on the date indicated above and is addressed to the Commissioner of Patents and Trademarks, Washington, D.C. 20231

Signature of person mailing correspondence
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Typed or printed name of person mailing correspondence
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II. ☒ New International Application

TITLE	METHOD AND APPARATUS FOR REMOTELY MONITORING A SITE
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Earliest priority date (Day/Month/Year)
01 September 1999 (01.09.99)

SCREENING DISCLOSURE INFORMATION: In order to assist in screening the accompanying international application for purposes of determining whether a license for foreign transmittal should and could be granted and for other purposes, the following information is supplied. (Note: check as many boxes as apply):

- A. ☐ The invention disclosed was not made in the United States.
 B. ☐ There is no prior U.S. application relating to this invention.
 C. ☒ The following prior U.S. application(s) contain subject matter which is related to the invention disclosed in the attached international application. (NOTE: priority to these applications may or may not be claimed on form PCT/RO/101 (Request) and this listing does not constitute a claim for priority.)

application no.	09/387,496	filed on	01 September 1999 (01.09.99)
application no.		filed on	

- D. ☒ The present international application ☒ is identical to ☐ contains less subject matter than that found in the prior U.S. application(s) identified in paragraph C above.
 E. ☐ The present international application ☐ contains additional subject matter not found in the prior U.S. application(s) identified in paragraph C above. The additional subject matter is found on pages _____ and ☐ DOES NOT ALTER ☐ MIGHT BE CONSIDERED TO ALTER the general nature of the invention in a manner which would require the U.S. application to have been made available for inspection by the appropriate defense agencies under 35 U.S.C. 181 and 37 CFR 5.1. See 37 CFR 5.15.

III. ☐ A Response to an Invitation from the RO/US. The following document(s) is(are) enclosed:

- A. ☐ A Request for An Extension of Time to File a Response
 B. ☐ A Power of Attorney (General or Regular)
 C. ☐ Replacement pages:

pages		of the request (PCT/RO/101)	pages		of the figures
pages		of the description	pages		of the abstract
pages		of the claims			

- D. ☐ Submission of Priority Documents

Priority document		Priority document	
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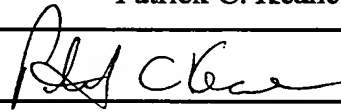
- E. ☐ Fees as specified on attached Fee Calculation sheet form PCT/RO/101 annex.

IV. ☐ A Request for Rectification under PCT Rule 91☐ A Petition☐ A Sequence Listing DisketteV. ☐ Other (please specify):The person
signing this
form is the:

<input type="checkbox"/> Applicant
<input checked="" type="checkbox"/> Attorney/Agent (Reg. No.) 32,858
<input type="checkbox"/> Common Representative

Typed name of signer

Patrick C. Keane



Signature

P. . . ENT COOPERATION TREATY

PCT

NOTIFICATION OF ELECTION

(PCT Rule 61.2)

From the INTERNATIONAL BUREAU

To:

Commissioner
 US Department of Commerce
 United States Patent and Trademark
 Office, PCT
 2011 South Clark Place Room
 CP2/5C24
 Arlington, VA 22202
 ETATS-UNIS D'AMERIQUE
 in its capacity as elected Office

Date of mailing (day/month/year) 13 August 2001 (13.08.01)	
International application No. PCT/US00/23974	Applicant's or agent's file reference 032657-002
International filing date (day/month/year) 01 September 2000 (01.09.00)	Priority date (day/month/year) 01 September 1999 (01.09.99)
Applicant KIMMEL, David, E. et al	

1. The designated Office is hereby notified of its election made:

☒ in the demand filed with the International Preliminary Examining Authority on:

30 March 2001 (30.03.01)

☐ in a notice effecting later election filed with the International Bureau on:
2. The election ☒ was
☐ was not

made before the expiration of 19 months from the priority date or, where Rule 32 applies, within the time limit under Rule 32.2(b).

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland Facsimile No.: (41-22) 740.14.35	Authorized officer Maria Kirchner Telephone No.: (41-22) 338.83.38
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PATENT COOPERATION TREATY

From the
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

PCT

To:

ROBERT S. SWECKER
BURNS, DOANE, SWECKER & MATHIS, LLP
P.O. BOX 1404
ALEXANDRIA VA 22313-1404

NOTIFICATION OF RECEIPT OF DEMAND BY COMPETENT INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

(PCT Rule 59.3(e) and 61.1(b), first sentence
and Administrative Instructions, Section 601(a))

Date of mailing
(day/month/year)

19 APR 2001

Applicant's or agent's file reference
032657-002

IMPORTANT NOTIFICATION

International application No.
PCT/US00/23974

International filing date (day/month/year)
01 SEP 00

Priority date (day/month/year)
01 SEP 99

Applicant

NETTALON SECURITY SYSTEMS, INC.

1. The applicant is hereby **notified** that this International Preliminary Examining Authority considers the following date as the date of receipt of the demand for international preliminary examination of the international application:

30 MARCH 2001

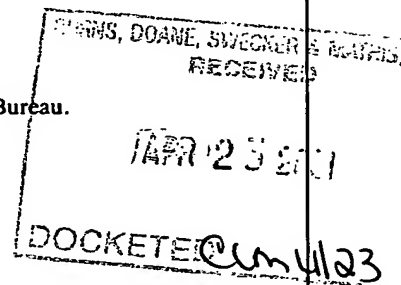
2. That date of receipt is:

- ☒ the actual date of receipt of the demand by this Authority (Rule 61.1(b)).
- ☐ the actual date of receipt of the demand on behalf of this Authority (Rule 59.3(e)).
- ☐ the date on which this Authority has, in response to the invitation to correct defects in the demand (Form PCT/IPEA/404), received the required corrections.

3. ☐ **ATTENTION:** That date of receipt is **AFTER** the expiration of 19 months from the priority date. Consequently, the election(s) made in the demand does (do) not have the effect of postponing the entry into the national phase until 30 months from the priority date (or later in some Offices) (Article 39(1)). Therefore, the acts for entry into the national phase must be performed within 20 months from the priority date (or later in some Offices) (Article 22). For details, see the *PCT Applicant's Guide*, Volume II.

- ☐ (If applicable) This notification confirms the information given by telephone, facsimile transmission or in person on:

4. Only where paragraph 3 applies, a copy of this notification has been sent to the International Bureau.



Name and mailing address of the IPEA/US
Assistant Commissioner for Patents
Box PCT
Washington, D.C. 20231
Facsimile No.

Attn: IPEA/US

Authorized officer

D. Russell for Y. Han

Telephone No. **703 305 3670**

PCT

NOTICE INFORMING THE APPLICANT OF THE
COMMUNICATION OF THE INTERNATIONAL
APPLICATION TO THE DESIGNATED OFFICES

(PCT Rule 47.1(c), first sentence)

From the INTERNATIONAL BUREAU

To:

SWECKER, Robert, S.
BURNS, DOANE, SWECKER & MATHIS, LLP
P.O. Box 1404
Alexandria, VA 22313-1404
ETATS-UNIS D'AMERIQUE

Date of mailing (day/month/year) 08 March 2001 (08.03.01)		IMPORTANT NOTICE	
Applicant's or agent's file reference 032657-002			
International application No. PCT/US00/23974	International filing date (day/month/year) 01 September 2000 (01.09.00)	Priority date (day/month/year) 01 September 1999 (01.09.99)	
Applicant NETTALON SECURITY SYSTEMS, INC. et al			

1. Notice is hereby given that the International Bureau has communicated, as provided in Article 20, the international application to the following designated Offices on the date indicated above as the date of mailing of this Notice:
AU, KP, KR, US

In accordance with Rule 47.1(c), third sentence, those Offices will accept the present Notice as conclusive evidence that the communication of the international application has duly taken place on the date of mailing indicated above and no copy of the international application is required to be furnished by the applicant to the designated Office(s).

2. The following designated Offices have waived the requirement for such a communication at this time:
AE, AG, AL, AM, AP, AT, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EA, EE, EP, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OA, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU.
The communication will be made to those Offices only upon their request. Furthermore, those Offices do not require the applicant to furnish a copy of the international application (Rule 49.1(a-bis)).
3. Enclosed with this Notice is a copy of the international application as published by the International Bureau on 08 March 2001 (08.03.01) under No. WO 01/16912

REMINDER REGARDING CHAPTER II (Article 31(2)(a) and Rule 54.2)

If the applicant wishes to postpone entry into the national phase until 30 months (or later in some Offices) from the priority date, a demand for international preliminary examination must be filed with the competent International Preliminary Examining Authority before the expiration of 19 months from the priority date.

It is the applicant's sole responsibility to monitor the 19-month time limit.

Note that only an applicant who is a national or resident of a PCT Contracting State which is bound by Chapter II has the right to file a demand for international preliminary examination.

REMINDER REGARDING ENTRY INTO THE NATIONAL PHASE (Article 22 or 39(1))

If the applicant wishes to proceed with the international application in the national phase, he must, within 20 months or 30 months, or later in some Offices, perform the acts referred to therein before each designated or elected Office.

For further important information on the time limits and acts to be performed for entering the national phase, see the Annex to Form PCT/IB/301 (Notification of Receipt of Record Copy) and Volume II of the PCT Applicant's Guide.

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland Facsimile No. (41-22) 740.14.35	Authorized officer J. Zahra Telephone No. (41-22) 338.83.38	RECEIVED MAR 20 2001 BURNS DOANE SWECKER
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PATENT COOPERATION TREATY

PCK/NMM

PCT

From the INTERNATIONAL BUREAU

NOTIFICATION CONCERNING
SUBMISSION OR TRANSMITTAL
OF PRIORITY DOCUMENT

(PCT Administrative Instructions, Section 411)

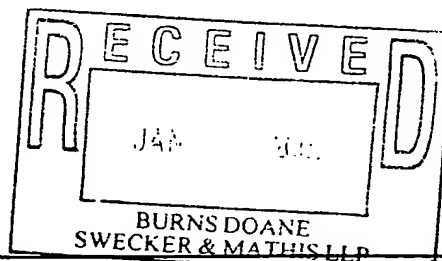
To:

SWECKER, Robert, S.
BURNS, DOANE, SWECKER & MATHIS, LLP
P.O. Box 1404
Alexandria, VA 22313-1404
ETATS-UNIS D'AMERIQUE

Date of mailing (day/month/year) 22 December 2000 (22.12.00)	IMPORTANT NOTIFICATION
Applicant's or agent's file reference 032657-002	
International application No. PCT/US00/23974	International filing date (day/month/year) 01 September 2000 (01.09.00)
International publication date (day/month/year) Not yet published	Priority date (day/month/year) 01 September 1999 (01.09.99)
Applicant NETTALON SECURITY SYSTEMS, INC. et al	

1. The applicant is hereby notified of the date of receipt (except where the letters "NR" appear in the right-hand column) by the International Bureau of the priority document(s) relating to the earlier application(s) indicated below. Unless otherwise indicated by an asterisk appearing next to a date of receipt, or by the letters "NR", in the right-hand column, the priority document concerned was submitted or transmitted to the International Bureau in compliance with Rule 17.1(a) or (b).
2. This updates and replaces any previously issued notification concerning submission or transmittal of priority documents.
3. An asterisk(*) appearing next to a date of receipt, in the right-hand column, denotes a priority document submitted or transmitted to the International Bureau but not in compliance with Rule 17.1(a) or (b). In such a case, **the attention of the applicant is directed to Rule 17.1(c) which provides that no designated Office may disregard the priority claim concerned before giving the applicant an opportunity, upon entry into the national phase, to furnish the priority document within a time limit which is reasonable under the circumstances.**
4. The letters "NR" appearing in the right-hand column denote a priority document which was not received by the International Bureau or which the applicant did not request the receiving Office to prepare and transmit to the International Bureau, as provided by Rule 17.1(a) or (b), respectively. In such a case, **the attention of the applicant is directed to Rule 17.1(c) which provides that no designated Office may disregard the priority claim concerned before giving the applicant an opportunity, upon entry into the national phase, to furnish the priority document within a time limit which is reasonable under the circumstances.**

<u>Priority date</u>	<u>Priority application No.</u>	<u>Country or regional Office or PCT receiving Office</u>	<u>Date of receipt of priority document</u>
01 Sept 1999 (01.09.99)	09/387,496	US	19 Dec 2000 (19.12.00)



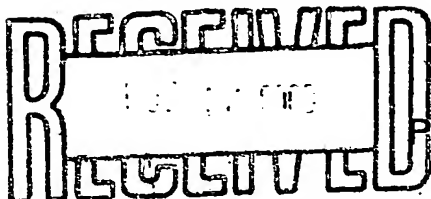
The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland Facsimile No. (41-22) 740.14.35	Authorized officer Marc Salzman Telephone No. (41-22) 338.83.38
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1/5/01-LP

BURNS, DOANE,

PATENT COOPERATION TREATY

PCK/NMM

SWECKER & MATHIS, NOTIFICATION OF RECEIPT OF
RECORD COPY

(PCT Rule 24.2(a))

From the INTERNATIONAL BUREAU

To:

SWECKER, Robert, S.
BURNS, DOANE, SWECKER & MATHIS, LLP
P.O. Box 1404
Alexandria, VA 22313-1404
ETATS-UNIS D'AMERIQUE

Date of mailing (day/month/year) 31 October 2000 (31.10.00)	IMPORTANT NOTIFICATION
Applicant's or agent's file reference 032657-002	International application No. PCT/US00/23974

The applicant is hereby notified that the International Bureau has received the record copy of the international application as detailed below.

Name(s) of the applicant(s) and State(s) for which they are applicants:

NETTALON SECURITY SYSTEMS, INC. (for all designated States except US)
KIMMEL, David, E. et al (for US)

International filing date : 01 September 2000 (01.09.00)

Priority date(s) claimed : 01 September 1999 (01.09.99)

Date of receipt of the record copy
by the International Bureau : 16 October 2000 (16.10.00)

List of designated Offices :

AP : GH,GM,KE,LS,MW,MZ,SD,SL,SZ,TZ,UG,ZW

EA : AM,AZ,BY,KG,KZ,MD,RU,TJ,TM

EP : AT,BE,CH,CY,DE,DK,ES,FI,FR,GB,GR,IE,IT,LU,MC,NL,PT,SE

OA : BF,BJ,CF,CG,CI,CM,GA,GN,GW,ML,MR,NE,SN,TD,TG

National : AE,AG,AL,AM,AT,AU,AZ,BA,BB,BG,BR,BY,BZ,CA,CH,CN,CR,CU,CZ,DE,DK,DM,DZ,EE,
ES,FI,GB,GD,GE,GH,GM,HR,HU,ID,IL,IN,IS,JP,KE,KG,KP,KR,KZ,LC,LK,LR,LS,LT,LU,LV,MA,
MD,MG,MK,MN,MW,MX,MZ,NO,NZ,PL,PT,RO,RU,SD,SE,SG,SI,SK,SL,TJ,TM,TR,TT,TZ,UA,UG,US,
UZ,VN,YU,ZA,ZW

ATTENTION

The applicant should carefully check the data appearing in this Notification. In case of any discrepancy between these data and the indications in the international application, the applicant should immediately inform the International Bureau.

In addition, the applicant's attention is drawn to the information contained in the Annex, relating to:

- ☒ time limits for entry into the national phase
☐ confirmation of precautionary designations
☒ requirements regarding priority documents

A copy of this Notification is being sent to the receiving Office and to the International Searching Authority.

The International Bureau of WIPO
34, chemin des Colombettes
1211 Geneva 20, Switzerland

Facsimile No. (41-22) 740.14.35

Authorized officer:

H. Zhou

Telephone No. (41-22) 338.83.38

11/15/00-42

INFORMATION ON TIME LIMITS FOR ENTERING THE NATIONAL PHASE

The applicant is reminded that the "national phase" must be entered before each of the designated Offices indicated in the Notification of Receipt of Record Copy (Form PCT/IB/301) by paying national fees and furnishing translations, as prescribed by the applicable national laws.

The time limit for performing these procedural acts is **20 MONTHS** from the priority date or, for those designated States which the applicant elects in a demand for international preliminary examination or in a later election, **30 MONTHS** from the priority date, provided that the election is made before the expiration of 19 months from the priority date. Some designated (or elected) Offices have fixed time limits which expire even later than 20 or 30 months from the priority date. In other Offices an extension of time or grace period, in some cases upon payment of an additional fee, is available.

In addition to these procedural acts, the applicant may also have to comply with other special requirements applicable in certain Offices. **It is the applicant's responsibility** to ensure that the necessary steps to enter the national phase are taken in a timely fashion. Most designated Offices do not issue reminders to applicants in connection with the entry into the national phase.

For detailed information about the procedural acts to be performed to enter the national phase before each designated Office, the applicable time limits and possible extensions of time or grace periods, and any other requirements, see the relevant Chapters of Volume II of the PCT Applicant's Guide. Information about the requirements for filing a demand for international preliminary examination is set out in Chapter IX of Volume I of the PCT Applicant's Guide.

GR and ES became bound by PCT Chapter II on 7 September 1996 and 6 September 1997, respectively, and may, therefore, be elected in a demand or a later election filed on or after 7 September 1996 and 6 September 1997, respectively, regardless of the filing date of the international application. (See second paragraph above.)

Note that only an applicant who is a national or resident of a PCT Contracting State which is bound by Chapter II has the right to file a demand for international preliminary examination.

CONFIRMATION OF PRECAUTIONARY DESIGNATIONS

This notification lists only specific designations made under Rule 4.9(a) in the request. It is important to check that these designations are correct. Errors in designations can be corrected where precautionary designations have been made under Rule 4.9(b). The applicant is hereby reminded that any precautionary designations may be confirmed according to Rule 4.9(c) before the expiration of 15 months from the priority date. If it is not confirmed, it will automatically be regarded as withdrawn by the applicant. There will be no reminder and no invitation. Confirmation of a designation consists of the filing of a notice specifying the designated State concerned (with an indication of the kind of protection or treatment desired) and the payment of the designation and confirmation fees. Confirmation must reach the receiving Office within the 15-month time limit.

REQUIREMENTS REGARDING PRIORITY DOCUMENTS

For applicants who have not yet complied with the requirements regarding priority documents, the following is recalled.

Where the priority of an earlier national, regional or international application is claimed, the applicant must submit a copy of the said earlier application, certified by the authority with which it was filed ("the priority document") to the receiving Office (which will transmit it to the International Bureau) or directly to the International Bureau, before the expiration of 16 months from the priority date, provided that any such priority document may still be submitted to the International Bureau before that date of international publication of the international application, in which case that document will be considered to have been received by the International Bureau on the last day of the 16-month time limit (Rule 17.1(a)).

Where the priority document is issued by the receiving Office, the applicant may, instead of submitting the priority document, request the receiving Office to prepare and transmit the priority document to the International Bureau. Such request must be made before the expiration of the 16-month time limit and may be subjected by the receiving Office to the payment of a fee (Rule 17.1(b)).

If the priority document concerned is not submitted to the International Bureau or if the request to the receiving Office to prepare and transmit the priority document has not been made (and the corresponding fee, if any, paid) within the applicable time limit indicated under the preceding paragraphs, any designated State may disregard the priority claim, provided that no designated Office may disregard the priority claim concerned before giving the applicant an opportunity to furnish the priority document within a time limit which is reasonable under the circumstances.

Where several priorities are claimed, the priority date to be considered for the purposes of computing the 16-month time limit is the filing date of the earliest application whose priority is claimed.

PATENT COOPERATION TREATY

BURNS, DOANE, SWECKER & MATHIS, LLP
RECEIVED 10/13

From the RECEIVING OFFICE

*Resp To 2. bit
Due 11/11/00*

PCT OCT 13 2000
*Pct Tolon Security
PCK/NMM*

To:

ROBERT S. SWECKER
BURNS, DOANE, SWECKER & MATHIS, LLP
P.O. BOX 1404
ALEXANDRIA VA 22313-1404

NOTIFICATION CONCERNING PAYMENT OF PRESCRIBED FEES

(PCT Rules 14, 15 and 16 and Administrative
Instructions, Sections 304(a) and (b) and 323(b))

Applicant's or agent's file reference 032657-002		Date of mailing (day/month/year) 11 OCT 2000
International application No. PCT/US00/23974		International filing date/Date of receipt (day/month/year) 01 SEP 00
Priority date (day/month/year) 01 SEP 99		Priority date (day/month/year) 01 SEP 99
Applicant NETTALON SECURITY SYSTEMS, INC.		

1. The applicant is hereby notified that this receiving Office has received:

- ☒ the payment of all the prescribed fees, and ☐ an overpayment, which will be refunded in due course.
- ☐ no or insufficient payment of the prescribed fees and the applicant is hereby invited to pay the balance due, as summarized under item 2, within the time limit(s) indicated under item 3.

2. Fees and payment calculation:

_____	_____	= _____
Total fees payable	Amount paid	Balance

☐ The details of the calculation are given in the Annex.

3. Time limit(s) for payment and amount(s) payable (Rules 14.1, 15.4 and 16.1(f)):

- ☐ within ONE MONTH from the date of receipt of the international application (for the transmittal fee (if any), the search fee, the basic fee and the designation fee). The amount payable for each fee is the amount applicable on the date of receipt of the international application.
- ☐ within ONE YEAR from the priority date (only for the designation fee and only if this time limit expires later than the above time limit).
 --If the designation fee is paid within one month from the date of receipt of the international application, the amount payable is the amount applicable on that date of receipt.
 --If the designation fee is paid within one year from the priority date but later than one month from the date of receipt of the international application, the amount payable is the amount applicable on the date of payment. The receiving Office should be consulted for the applicable amount.
- ☐ within 16 MONTHS from the priority date (only for the fee for priority document). The applicant's attention is drawn to the fact that the request made by the applicant under Rule 17.1(b) will be considered not to have been made unless the fee is paid within that time limit.

4. Additional observations (if necessary):

- ☐ The search copy will not be transmitted to the International Searching Authority until the search fee is paid (therefore the start of the international search will be delayed)(Rule 23.1(a) and (b)).

Name and mailing address of the receiving Office Assistant Commissioner for Patents Box PCT Washington, D.C. 20231 Facsimile No.	Authorized officer Kendra Dunlap PCT International Division (703) 305-3165 Telephone No.
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TENT COOPERATION TREATY

From the RECEIVING OFFICE

PCT

NOTIFICATION OF THE INTERNATIONAL APPLICATION NUMBER AND OF THE INTERNATIONAL FILING DATE

(PCT Rule 20.5(c))

To:

ROBERT S. SWECKER
BURNS, DOANE, SWECKER & MATHIS, LLP
P.O. BOX 1404
ALEXANDRIA VA 22313-1404

Date of mailing
(day/month/year)

1 1 OCT 2000

Applicant's or agent's file reference
032657-002

IMPORTANT NOTIFICATION

International application No.

PCT/US00/23974

International filing date (day/month/year)

01 SEP 00

Priority date (day/month/year)

01 SEP 99

Applicant NETTALON SECURITY SYSTEMS, INC.

Title of the invention

METHOD AND APPARATUS FOR REMOTELY MONITORING A
SITE

1. The applicant is hereby notified that the international application has been accorded the international application number and the international filing date indicated above.

2. The applicant is further notified that the record copy of the international application:



was transmitted to the International Bureau on

1 1 OCT 2000



has not yet been transmitted to the International Bureau for the reason indicated below and a copy of this notification has been sent to the International Bureau*:



because the necessary national security clearance has not yet been obtained.



because (reason to be specified):

* The International Bureau monitors the transmittal of the record copy by the receiving Office and will notify the applicant (with Form PCT/IB/301) of its receipt. Should the record copy not have been received by the expiration of 14 months from the priority date, the International Bureau will notify the applicant (Rule 22.1(c)).

3. FOREIGN TRANSMITTAL LICENSE INFORMATION

Completed by: 



Additional license for foreign transmittal not required. This subject matter is covered by a license already granted on the equivalent U.S. national application. Refer to that license for information concerning its scope.



License for foreign transmittal not required. 37 CFR 5.11(e)(1) or 37 CFR 5.11(e)(2). However, a license may be required for additional subject matter. See 37 CFR 5.15(b).



Foreign transmittal license granted. 35 U.S.C. 184; 37 CFR 5.11 on 9-13-00 :
(date)



37 CFR 5.15(a)



37 CFR 5.15(b)

Name and mailing address of the receiving Office

Assistant Commissioner for Patents
Box PCT
Washington, D.C. 20231

Attn: RO/US

Facsimile No.

Authorized officer

Kendra Dunlap
PCT International Division
(703) 305-3165

Telephone No.

PATENT COOPERATION TREATY

From the RECEIVING OFFICE

PCT

To:

ROBERT S. SWECKER
BURNS, DOANE, SWECKER & MATHIS, LLP
P.O. BOX 1404
ALEXANDRIA VA 22313-1404

INVITATION TO CORRECT DEFECTS IN THE INTERNATIONAL APPLICATION

(PCT Articles 3(4)(i) and 14(1) and Rule 26)

Applicant's or agent's file reference 032657-002	Date of mailing (day/month/year) 11 OCT 2000
International application No. PCT/US00/23974	International filing date (day/month/year) 01 SEP 00
Applicant NETTALON SECURITY SYSTEMS, INC.	

☒ The applicant is hereby invited, within the time limit indicated above, to correct, in the international application as filed, the defects specified on the attached

☒ Annex A

☐ Annex B1 (text matter of the international application as filed)

☒ Annex C1 (drawings of the international application as filed)

2. ☐ The applicant is hereby invited, within the time limit indicated above, to correct, in the translation of the international application furnished under Rule 12.3, the defects specified on the attached

☐ Annex A

☐ Annex B2 (text matter of the translation of the international application)

☐ Annex C2 (drawings of the translation of the international application)

Additional observations (if necessary):

HOW TO CORRECT THE DEFECTS?

Correction must be submitted by filing a replacement sheet embodying the correction and a letter accompanying the replacement sheet, which shall draw attention to the difference between the replaced sheet and the replacement sheet. A correction may be stated in a letter only if it is of such a nature that it can be transferred from the letter to the record copy without adversely affecting the clarity and direct reproducibility of the sheet onto which the correction is to be transferred (Rule 26.4).

ATTENTION

Failure to correct the defects will result in the international application being considered withdrawn by this receiving Office (see Rule 26.5 for further details).

A copy of this invitation and any attachments has been sent to the International Bureau

☒ and the International Searching Authority.

Name and mailing address of the receiving Office Assistant Commissioner for Patents Box PCT Washington, D.C. 20231 Facsimile No.	Authorized officer Kendra Dunlap PCT International Division (703) 305-3165 Telephone No.
--	---

ANNEX A TO FORM PCT/RO/106

International application No.

00/23974

The receiving Office has found the following defects in the international application as filed:

1. As to signature* of the international application (Rules 4.1.5 and 90.4), the request:
- a. ☐ is not signed.
 - b. ☐ is not signed by all applicants.
 - c. ☐ is not accompanied by the statement referred to in the check list in Box No. VIII of the request explaining the lack of the signature of an applicant for the designation of the United States of America.
 - d. ☒ is signed by what appears to be an agent/common representative but
 - ☒ the international application is not accompanied by a power of attorney appointing him.
 - ☐ the power of attorney accompanying the international application was not signed by all the applicants.
 - e. ☐ other (specify):

* All applicants must sign, including inventors if they are also applicants (e.g. where the United States of America is designated).

2. As to indications concerning the applicant, the request (Rules 4.4 and 4.5):

- a. ☐ does not properly indicate the applicant's name (specify):
- b. ☐ does not indicate the applicant's address.
- c. ☐ does not properly indicate the applicant's address (specify):
- d. ☐ does not indicate the applicant's nationality.
- e. ☐ does not indicate the applicant's residence.
- f. ☐ other (specify):

3. As to the language of certain elements of the international application, other than the description and claims (Rules 12.1(c) and 26.3ter(a) and (c)):

- a. ☐ the request is not in a language which is both a language accepted by this receiving Office and a language of publication, which is (are):
- b. ☐ the text matter of the drawings is not in the language in which the international application is to be published, which is:
- c. ☐ the abstract is not in the language in which the international application is to be published, which is:

4. The title of the invention:

- a. ☐ is not indicated in Box No. I of the request (Rule 4.1(a)).
- b. ☐ is not indicated at the top of the first sheet of the description (Rule 5.1(a)).
- c. ☐ as appearing in Box No. I of the request is not identical with the title heading the description (Rule 5.1(a)).

5. As to the abstract (Rule 8):

- ☐ the international application does not contain an abstract.

00/23974

The receiving Office has found that, with regard to the presentation of the drawings of the international application as filed, the physical requirements are not complied with to the extent that compliance therewith is necessary for:

1. ☐ reasonably uniform international publication (Rules 11 and 26.3(a)(i)) (defects to be specified):

Sheets containing drawings:

- a. ☐ the sheets do not admit of direct reproduction.
- b. ☐ the sheets are not free from creases, cracks, folds.
- c. ☐ one side of the sheets is not left unused.
- d. ☐ the paper of the sheets is not flexible/strong/white/smooth/non-shiny/durable.
- e. ☐ the drawings do not commence on a new sheet.
- f. ☐ the sheets are not connected as prescribed (Rule 11.4(b)).
- g. ☐ the sheets are not A4 size (29.7cm x 21cm).
- h. ☒ the minimum margins on the sheets are not as prescribed (top: 2.5cm; left side: 2.5cm; right side: 1.5cm; bottom: 1cm).
- i. ☐ the file reference number indicated on the sheets does not appear in the left-hand corner of the sheets, within 1.5cm of the top of the sheets.
- j. ☐ the file reference number exceeds the maximum of 12 characters.
- k. ☐ the sheets are not free from frames around usable or used surfaces.
- l. ☒ the sheets are not numbered in consecutive Arabic numerals (e.g. 1/3, 2/3, 3/3).
- m. ☐ the sheet numbers are not centered at the top or bottom of the sheets.
- n. ☐ the sheet numbers are in the margin (see h. above for the size of the margins).
- o. ☐ the sheets contain alterations/overwritings/interlineations/too many erasures.
- p. ☐ the sheets contain photocopy marks.

Drawings (Rule 11.13):

- a. ☐ do not admit of direct reproduction.
- b. ☐ contain unnecessary text matter.
- c. ☐ contain words so placed as to prevent translation without interference with lines thereof.
- d. ☒ are not executed in durable black color; the lines are not uniformly thick and well-defined.
- e. ☐ contain cross-sections not properly hatched.
- f. ☐ would not be properly distinguishable in reduced reproduction.
- g. ☐ contain scales not represented graphically.
- h. ☒ contain numbers, letters and reference lines lacking simplicity and clarity.
- i. ☐ contain lines drafted without the aid of drafting instruments.
- j. ☐ contain disproportionate elements of a figure not necessary for clarity.
- k. ☐ contain numbers and letters of height less than 0.32 cm.
- l. ☐ contain letters not conforming to the Latin, and where customary, Greek alphabets.
- m. ☐ contain figures on two or more sheets which form a single complete figure but which are not able to be assembled without concealing parts thereof.
- n. ☐ contain figures which are not properly arranged and clearly separated.
- o. ☐ contain different figures not numbered in consecutive Arabic numerals.
- p. ☐ contain different figures not numbered independent of the numbering of the sheets.
- q. ☐ are not restricted to reference signs mentioned in the description.
- r. ☐ do not contain reference signs that are mentioned in the description.
- s. ☐ contain the same feature denoted by different reference signs.
- t. ☐ are not arranged in an upright position, clearly separated from one another.
- u. ☐ are not presented sideways with the top of the figures at the left side of the sheets.

2. ☐ satisfactory reproduction (Rules 11 and 26.3(b)(i)).

Further observations (if necessary):

Shading and Solid black objected.

New Drawings Required.

INTERNATIONAL COOPERATION TREATY

From the INTERNATIONAL SEARCHING AUTHORITY

PCT

To:

ROBERT S. SWECKER
BURNS, DOANE, SWECKER & MATHIS, LLP
P.O. BOX 1404
ALEXANDRIA VA 22313-1404

NOTIFICATION OF RECEIPT OF SEARCH COPY

(PCT Rule 25.1)

<p>Date of mailing (day/month/year) 11 OCT 2000</p>		
<p>Applicant's or agent's file reference 032657-002</p>	<p>IMPORTANT NOTIFICATION</p>	
<p>International application No. PCT/US00/23974</p>	<p>International filing date (day/month/year) 01 SEP 00</p>	<p>Priority date (day/month/year) 01 SEP 99</p>
<p>Applicant NETTALON SECURITY SYSTEMS, INC.</p>		

1. **Where the International Searching Authority and the receiving Office are not the same Office:**
The applicant is hereby notified that the search copy of the international application was received by this International Searching Authority on the date indicated below.

Where the International Searching Authority and the receiving Office are the same Office:
The applicant is hereby notified that the search copy of the international application was received on the date indicated below.

11 OCT 2000

(date of receipt)

2. **Time limit for establishment of international search report**
The applicant is informed that the time limit for establishing the international search report is 3 months from the date of receipt indicated above or 9 months from the priority date, whichever time limit expires later.
3. A copy of this notification has been sent to the International Bureau and, where the first sentence of paragraph 1 applies, to the receiving Office.

<p>Name and mailing address of the ISA/US Assistant Commissioner for Patents Box PCT Washington, D.C. 20231 Facsimile No.</p>	<p>Authorized officer Kendra Dunlap PCT International Division (703) 305-3165</p> <p>Telephone No.</p>
---	---

TO: ROBERT S. SWECKER BURNS, DOANE, SWECKER & MATHIS, LLP P.O. BOX 1404 ALEXANDRIA, VA 22313 1404	UNITED STATES DESIGNATED/ELECTED OFFICE (DO/EO/US)
	NOTIFICATION OF STATUS OF REQUIREMENTS UNDER 35 U.S.C. 371
	DATE OF MAILING (day/month/year) 11 OCT 00
FILE REFERENCE 032657-002	

IDENTIFICATION OF INTERNATIONAL APPLICATION

International application No. PCT/US00/23974	International filing date (day/month/year) 01 SEP 00	Priority Date Claimed 01 SEP 99
--	---	---

Applicant for DO/EO/US

KIMMEL, DAVID E.

NOTIFICATION

The applicant is hereby advised that the U.S. Patent and Trademark Office in its capacity as ☒ Designated Office ☐ Elected Office has received following items as of the date of mailing indicated above.

1. ☐ U.S. Nation fee [35 U.S.C 371 (c) (1)]
 2. ☐ Oath of declaration [35 U.S.C 371 (c) (4)]
 3. ☒ Copy of International application as [35 U.S.C 371 (c) (2)]
 4. ☐ Translation of Application [35 U.S.C 371 (c) (2)]
 5. ☐ Amendments under PCT Article 19 [35 U.S.C 371 (c) (3)]
 6. ☐ Translation of PCT Article 19 Amendments [35 U.S.C 371 (c) (3)]
 7. ☐ Search Report or Declaration under PCT Article 17(2) [35 U.S.C 371 (a)]
 8. ☐ International Preliminary Examination Report and its Annexes, if any, under PCT Article 36(3)(b) [35 U.S.C 371 (a)]
 9. ☐ Translation of Annexes to the International Preliminary Examination Report under PCT Article 36(3)(b) [35 U.S.C 371 (c) (5)]
 10. ☐ Other items received:

<input type="checkbox"/> Assignment Document	<input type="checkbox"/> Prior Art Statement	<input type="checkbox"/> Preliminary Amendment
--	--	--
- A. ☐ Requirements for U.S. National processing have been met. Processing will commence
- ☐ at the expiration of the applicable time limit under either
☐ PCT Article 22 [35 U.S.C 371 (b)] or
☐ PCT Article 39 [35 U.S.C 371 (b)]
☐ on the date indicated below under the provisions of 35 U.S.C 371 (f)

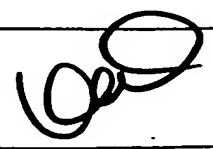
U.S. NATIONAL SERIAL#

DATE UNDER 35 U.S.C. 102(e)

DATE OF COMMENCEMENT
OF NATIONAL PROCESSING

All correspondence submitted after the date of commencement of U.S. National processing indicated above should refer to the U.S. National Serial Number and the appropriate U.S. National processing organization of Officer.

- B. ☐ As the above identified application has been accepted for U.S. National processing under the provision of 35 U.S.C. 371 (f) before expiration of the applicable time limit under ☐ PCT Article 22 ☐ PCT Article 39, applicant is reminded that
- ☐ Amendments under PCT Article 19 and/or
☐ the International Preliminary Examination Report and its Annexes, if any, under PCT Article 36(3) (a), and (b) and any translation thereof, if applicable, must be submitted to the Patent and Trademark Office as soon as they are available.

International application No.	International filing date	Priority Date Claimed
PCT/US00/23974	01 SEP 00	01 SEP 99
<p>C. <input checked="" type="checkbox"/> In order that U.S. National processing may begin, certain items must be received by the DO/EO/US by the expiration of applicable time limit under</p> <ul style="list-style-type: none"><input checked="" type="checkbox"/> PCT Article 22 or<input checked="" type="checkbox"/> PCT Article 39. <p>Specifically:</p> <ul style="list-style-type: none"><input checked="" type="checkbox"/> 1. U.S. National Fee<input checked="" type="checkbox"/> 2. Oath or Declaration<input type="checkbox"/> 3. Copy of Application<input type="checkbox"/> 4. Translation of application<input checked="" type="checkbox"/> 5. Amendments under PCT Article 19, if any<input type="checkbox"/> 6. Translation of PCT Article 19 Amendments, if applicable<input type="checkbox"/> 7. Search Report or PCT Article 17(2) declaration<input type="checkbox"/> 8. International Preliminary Examination Report and its Annexes, if any, under PCT Article 36(3)(a), if applicable<input type="checkbox"/> 9. Translation of Annexes to the International Preliminary Examination Report under PCT Article 36(3)(b), if applicable <p>THE ABOVE CHECK ITEMS MUST BE TIMELY RECEIVED TO AVOID ABANDONMENT OF THE APPLICATION. [35. U.S.C. 371(d)]</p> <p>D. Further information for the applicant:</p> <p style="text-align: center;">This is only a reminder.</p>		
UNITED STATES DESIGNATED/ELECTED OFFICE		
Address Only: Assistant Commissioner for Patent Box PCT Washington, D.C. 20231 Attn:RO/US		Authorized Office DUNLAP, KENDRA M 

PATENT COOPERATION TREATY

From the
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

To: ROBERT S. SWECKER
BURNS, DOANE, SWECKER & MATHIS, LLP
P.O. BOX 1404
ALEXANDRIA VA 22313-1404

PCT

WRITTEN OPINION
DOCKETED

(PCT Rule 66)

Date of Mailing
(day/month/year)

25 FEB 2002

Applicant's or agent's file reference

032657-002

REPLY DUE

within **TWO** months
from the above date of mailing

International application No.

PCT/US00/23974

International filing date (day/month/year)

01 SEPTEMBER 2000

Priority date (day/month/year)

01 SEPTEMBER 1999

International Patent Classification (IPC) or both national classification and IPC
IPC(7): G08B 29/00 and US Cl.: 340/506

Applicant

NETTALON SECURITY SYSTEMS, INC.

1. This written opinion is the first (first, etc.) drawn by this International Preliminary Examining Authority.

2. This opinion contains indications relating to the following items:

- I ☒ Basis of the opinion
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step or industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

3. The applicant is hereby invited to reply to this opinion.

When? See the time limit indicated above. ~~The applicant may, before the expiration of that time limit, request this Authority to grant an extension, see Rule 66.2(d).~~

How? By submitting a written reply, accompanied, where appropriate, by amendments, according to Rule 66.3. For the form and the language of the amendments, see Rules 66.8 and 66.9.

Also For an additional opportunity to submit amendments, see Rule 66.4.
For the examiner's obligation to consider amendments and/or arguments, see Rule 66.4 bis.
For an informal communication with the examiner, see Rule 66.6.

If no reply is filed, the international preliminary examination report will be established on the basis of this opinion.

4. The final date by which the international preliminary examination report must be established according to Rule 69.2 is: 01 JANUARY 2002

Name and mailing address of the IPEA/US

Commissioner of Patents and Trademarks
Box PCT
Washington, D.C. 20231

Facsimile No. (703) 305-3230

Authorized officer

DARYL C. POPE

Telephone No. (703) 305-4838

Form PCT/IPEA/408 (cover sheet) (July 1998)★

(National stages filed)

FEB 27 02

Final
2002

I. Basis of the opinion

1. With regard to the elements of the international application: *

☒ the international application as originally filed

☒ the description:

pages 1-25 , as originally filed
 pages NONE , filed with the demand
 pages NONE , filed with the letter of _____

☒ the claims:

pages 26-31 , as originally filed
 pages NONE , as amended (together with any statement) under Article 19
 pages NONE , filed with the demand
 pages NONE , filed with the letter of _____

☒ the drawings:

pages 1-12 , as originally filed
 pages NONE , filed with the demand
 pages NONE , filed with the letter of _____

☒ the sequence listing part of the description:

pages NONE , as originally filed
 pages NONE , filed with the demand
 pages NONE , filed with the letter of _____

2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language _____ which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/or 55.3).

3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the written opinion was drawn on the basis of the sequence listing:

- ☐ contained in the international application in printed form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☒ The amendments have resulted in the cancellation of:

- ☒ the description, pages NONE
- ☒ the claims, Nos. NONE
- ☒ the drawings, sheets/fig NONE

5. ☐ This opinion has been drawn as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

** Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this opinion as "originally filed".*

WRITTEN OPINION

International application No.

PCT/US00/23974

V. Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. statement

Novelty (N)	Claims	<u>NONE</u>	YES
	Claims	<u>1-33</u>	NO
Inventive Step (IS)	Claims	<u>NONE</u>	YES
	Claims	<u>1-33</u>	NO
Industrial Applicability (IA)	Claims	<u>1-33</u>	YES
	Claims	<u>NONE</u>	NO

2. citations and explanations

Claims 1-33 lack novelty under PCT Article 33(2) as being anticipated by Launey et al(Launey). In figure 1 Launey shows a monitoring system including security panel(56), ethernet network(50), graphics interface(54), sensors(27,29,48a,48b), mobile computer(52A,52B,52C)(see: column 4, lines 1-58).

----- NEW CITATIONS -----
NONE

WRITTEN OPINION

International application No.

PCT/US00/23974

Supplemental Box

(To be used when the space in any of the preceding boxes is not sufficient)

Continuation of: Boxes I - VIII

Sheet 10

TIME LIMIT:



The time limit set for response to a Written Opinion may not be extended. 37 CFR 1.484(d). Any response received after the expiration of the time limit set in the Written Opinion will not be considered in preparing the International Preliminary Examination Report.

PCT POWER OF ATTORNEY

1/1

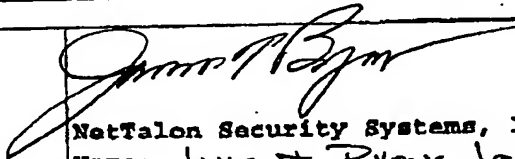
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032657-002

0-1	PCT Power of Attorney (for an international application filed under the Patent Cooperation Treaty) (PCT Rule 90.4)	
0-1-1	Prepared using	PCT-EASY Version 2.91 (updated 01.07.2000)
1	The undersigned applicant(s)	JONES, JR., Donald, R.
1-1	hereby appoints (appoint) the following person	SWECKER, Robert, S.; KEANE, Patrick, C. BURNS, DOANE, SWECKER & MATHIS, LLP P.O. Box 1404 Alexandria, VA 22313-1404 United States of America
1-2	as	agent
1-3	to represent the undersigned before	all the competent International Authorities
1-4	in connection with the international application identified below:	
1-4-1	Title of the invention	METHOD AND APPARATUS FOR REMOTELY MONITORING A SITE
1-4-2	Applicant's or agent's file reference	032657-002
1-4-3	International application number (if already available)	
1-4-4	filed with the following Office as receiving Office	United States Patent and Trademark Office (USPTO) (RO/US)
1-5	and to make or receive payments on behalf of the undersigned.	
2-4	Signature of applicant 	
2-4-1	Name	JONES, JR., Donald, R.
3	Date	01 September 2000 (01.09.2000)

PCT POWER OF ATTORNEY

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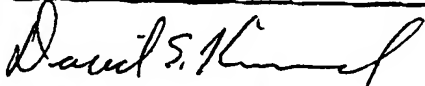
0-1	PCT Power of Attorney (for an international application filed under the Patent Cooperation Treaty) (PCT Rule 90.4)	
0-1-1	Prepared using	PCT-EASY Version 2.91 (updated 01.07.2000)
1	The undersigned applicant(s)	NetTalon Security Systems, Inc.
1-1-1	hereby appoints (appoint) the following person	SWECKER, Robert, S.; KEANE, Patrick, C. BURNS, DOANE, SWECKER & MATHIS, LLP P.O. Box 1404 Alexandria, VA 22313-1404 United States of America
1-2	as	agent
1-3	to represent the undersigned before	all the competent International Authorities
1-4	in connection with the international application identified below:	
1-4-1	Title of the invention	METHOD AND APPARATUS FOR REMOTELY MONITORING A SITE
1-4-2	Applicant's or agent's file reference	032657-002
1-4-3	International application number (if already available)	
1-4-4	filed with the following Office as receiving Office	United States Patent and Trademark Office (USPTO) (RO/US)
1-5	and to make or receive payments on behalf of the undersigned.	
2-1	Signature of applicant	
2-1-1	Name	NetTalon Security Systems, Inc.
2-1-2	Name of signatory	Name: JAMES T. BYRNE, Jr.
2-1-3	Capacity	Capacity: PRESIDENT
3	Date	01 September 2000 (01.09.2000)

PCT POWER OF ATTORNEY

1/1

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032657-002

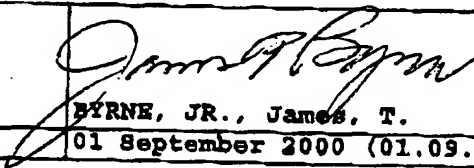
0-1	PCT Power of Attorney (for an International application filed under the Patent Cooperation Treaty) (PCT Rule 90.4)	
0-1.1	Prepared using	PCT-EASY Version 2.91 (updated 01.07.2000)
1	The undersigned applicant(s)	KIMMEL, David, E.
1-1.1	hereby appoints (appoint) the following person	SWECKER, Robert, S.; KEANE, Patrick, C. BURNS, DOANE, SWECKER & MATHIS, LLP P.O. Box 1404 Alexandria, VA 22313-1404 United States of America
1-2	as	agent
1-3	to represent the undersigned before	all the competent International Authorities
1-4	In connection with the international application identified below:	
1-4.1	Title of the invention	METHOD AND APPARATUS FOR REMOTELY MONITORING A SITE
1-4.2	Applicant's or agent's file reference	032657-002
1-4.3	International application number (if already available)	
1-4.4	filed with the following Office as receiving Office	United States Patent and Trademark Office (USPTO) (RO/US)
1-5	and to make or receive payments on behalf of the undersigned.	
2-2	Signature of applicant	
2-2.1	Name	KIMMEL, David, E.
3	Date	01 September 2000 (01.09.2000)

PCT POWER OF ATTORNEY

1/1

Printed on 01.09.2000 11:38:49 AM

032857-002

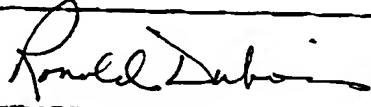
0-1	PCT Power of Attorney (for an international application filed under the Patent Cooperation Treaty) (PCT Rule 90.4)	
0-1-1	Prepared using	PCT-EASY Version 2.91 (updated 01.07.2000)
1	The undersigned applicant(s)	BYRNE, JR., James, T.
1-1-1	hereby appoints (appoint) the following person	SWECKER, Robert, S.; KEANE, Patrick, C. BURNS, DOANE, SWECKER & MATHIS, LLP P.O. Box 1404 Alexandria, VA 22313-1404 United States of America
1-2	as	agent
1-3	to represent the undersigned before	all the competent International Authorities
1-4	In connection with the international application identified below:	
1-4-1	Title of the invention	METHOD AND APPARATUS FOR REMOTELY MONITORING A SITE
1-4-2	Applicant's or agent's file reference	032657-002
1-4-3	International application number (if already available)	
1-4-4	filed with the following Office as receiving Office	United States Patent and Trademark Office (USPTO) (RO/US)
1-5	and to make or receive payments on behalf of the undersigned.	
2-3	Signature of applicant	
2-3-1	Name	BYRNE, JR., James, T.
3	Date	01 September 2000 (01.09.2000)

PCT POWER OF ATTORNEY

1/1

Printed on 01.09.2000 11:37:08 AM

032657-002

0-1	PCT Power of Attorney (for an international application filed under the Patent Cooperation Treaty) (PCT Rule 80.4)	
0-1-1	Prepared using	PCT-EASY Version 2.91 (updated 01.07.2000)
1	The undersigned applicant(s)	DUBOIS, Ronald
1-1-1	hereby appoints (appoint) the following person	SWECKER, Robert, S.; KEANE, Patrick, C. BURNS, DOANE, SWECKER & MATHIS, LLP P.O. Box 1404 Alexandria, VA 22313-1404 United States of America
1-2	as	agent
1-3	to represent the undersigned before	all the competent International Authorities
1-4	In connection with the international application identified below:	
1-4-1	Title of the invention	METHOD AND APPARATUS FOR REMOTELY MONITORING A SITE
1-4-2	Applicant's or agent's file reference	032657-002
1-4-3	International application number (if already available)	
1-4-4	filed with the following Office as receiving Office	United States Patent and Trademark Office (USPTO) (RO/US)
1-5	and to make or receive payments on behalf of the undersigned.	
2-5	Signature of applicant	
2-5-1	Name	DUBOIS, Ronald
3	Date	01 September 2000 (01.09.2000)

The demand must be filed directly with the competent International Preliminary Examining Authority or, if two or more Authorities are competent, with the one chosen by the applicant. The full name or two-letter code of that Authority may be indicated by the applicant on the line below:

IPEA/ US

PCT DEMAND

CHAPTER II

under Article 31 of the Patent Cooperation Treaty:

The undersigned requests that the international application specified below be the subject of international preliminary examination according to the Patent Cooperation Treaty and hereby elects all eligible States (except where otherwise indicated).

For International Preliminary Examining Authority use only

Identification of IPEA	Date of receipt of DEMAND
------------------------	---------------------------

Box No. I IDENTIFICATION OF THE INTERNATIONAL APPLICATION		Applicant's or agent's file reference 032657-002
International application No. PCT/US00/23974	International filing date (day/month/year) 01 September 2000 (01.09.00)	(Earliest) Priority date (day/month/year) 01 September 1999 (01.09.99)
Title of invention METHOD AND APPARATUS FOR REMOTELY MONITORING A SITE		

Box No. II APPLICANT(S)		
Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country.) NETTALON SECURITY SYSTEMS, INC. 3307 Bourbon Street Fredericksburg, VA 22408 United States of America		Telephone No.: 877 638 8256
		Facsimile No.: 540 368 5294
		Teleprinter No.:
State (that is, country) of nationality: US	State (that is, country) of residence: US	

Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country.) KIMMEL, David, E. 10110 Oat Lands Place Fredericksburg, VA 22408 United States of America	
State (that is, country) of nationality: US	State (that is, country) of residence: US

Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country.) BYRNE, JR., James, T. 12306 Running Deer Road Manassas, VA 20112 United States of America	
State (that is, country) of nationality: US	State (that is, country) of residence: US

<input checked="" type="checkbox"/> Further applicants are indicated on a continuation sheet.

3/30/01
CS

Continuation of Box No. II APPLICANT(S)

*If none of the following sub-boxes is used, this sheet should not be included in the demand.*Name and address: *(Family name followed by given name for a legal entity, full official designation. The address must include postal code and name of country.)*

JONES, JR., Donald, R.
Route 1, Box 376B
New Canton, VA 23123
United States of America

State (that is, country) of nationality:
USState (that is, country) of residence
USName and address: *(Family name followed by given name for a legal entity, full official designation. The address must include postal code and name of country.)*

DUBOIS, Ronald
3076 Antrim Circle
Dumfries, VA 22026
United States of America

State (that is, country) of nationality:
USState (that is, country) of residence
USName and address: *(Family name followed by given name for a legal entity, full official designation. The address must include postal code and name of country.)*

State (that is, country) of nationality:

State (that is, country) of residence

Name and address: *(Family name followed by given name for a legal entity, full official designation. The address must include postal code and name of country.)*

State (that is, country) of nationality:

State (that is, country) of residence



Further applicants are indicated on another continuation sheet.

Box No. III AGENT OR COMMON REPRESENTATIVE; OR ADDRESS FOR CORRESPONDENCEThe following person is ☒ agent ☐ common representativeand ☒ has been appointed earlier and represents the applicant(s) also for international preliminary examination.☐ is hereby appointed any earlier appointment of (an) agent(s)/common representative is hereby revoked.☐ is hereby appointed, specifically for the procedure before the International Preliminary Examining Authority, in addition to the agent(s)/common representative appointed earlier.Name and address: *(Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country.)*SWECKER, Robert, S. and KEANE, Patrick, C.
Burns, Doane, Swecker & Mathis, L.L.P.
P.O. Box 1404
Alexandria, Virginia 22313-1404
United States of AmericaTelephone No.:
(703) 836-6620Facsimile No.:
(703) 836-2021

Teleprinter No.:

☐ Address for correspondence: Mark this check-box where no agent or common representative is/has been appointed and the space above is used instead to indicate a special address to which correspondence should be sent.**Box No. IV BASIS FOR INTERNATIONAL PRELIMINARY EXAMINATION****Statement concerning amendments:***

1. The applicant wishes the international preliminary examination to start on the basis of:

☒ the international application as originally filedthe description ☒ as originally filed☐ as amended under Article 34the claims ☒ as originally filed☐ as amended under Article 19 (together with any accompanying statement)☐ as amended under Article 34the drawings ☒ as originally filed☐ as amended under article 342. ☐ The applicant wishes any amendment to the claims under Article 19 to be considered as reversed.3. ☐ The applicant wishes the start of the international preliminary examination to be postponed until the expiration of 20 months from the priority date unless the International Preliminary Examining Authority receives a copy of any amendments made under Article 19 or a notice from the applicant that he does not wish to make such amendments (Rule 69.1(d)). *(This check-box may be marked only where the time limit under Article 19 has not yet expired.)*

* Where no check-box is marked, international preliminary examination will start on the basis of the international application as originally filed or, where a copy of amendment to the claims under Article 19 and/or amendments of the international application under Article 34 are received by the International Preliminary Examining Authority before it has begun to draw up a written opinion or the international preliminary examination report, as so amended.

Language for the purposes of international preliminary examination: ENGLISH

☒ which is the language in which the international application was filed.☐ which is the language of a translation furnished for the purposes of international search.☐ which is the language of publication of the international application.☐ which is the language of the translation (to be) furnished for the purposes of international preliminary examination.**Box No. V ELECTION OF STATES**The applicant hereby elects all eligible States *(that is, all States which have been designated and which are bound by Chapter II of the PCT)*

excluding the following States which the applicant wishes not to elect:

Box No. VI CHECK LIST

The demand is accompanied by the following elements, in the language referred to in Box No. IV, for the purposes of international preliminary examination:

- | | | | |
|----|---|---|--------|
| 1. | translation of international application | : | sheets |
| 2. | amendments under Article 34 | : | sheets |
| 3. | copy (or, where required, translation) of amendments under Article 19 | : | sheets |
| 4. | copy (or, where required, translation) of statement under Article 19 | : | sheets |
| 5. | letter | : | sheets |
| 6. | other (specify) | : | sheets |

For International Preliminary
Examining Authority use only

received

not received

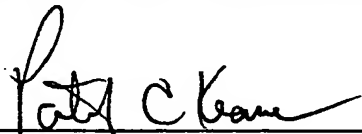
☐☐☐☐☐☐☐☐☐☐☐☐

The demand is also accompanied by the item(s) marked below:

- | | |
|--|---|
| 1. <input checked="" type="checkbox"/> fee calculation sheet | 4. <input type="checkbox"/> statement explaining lack of signature |
| 2. <input type="checkbox"/> separate signed power of attorney | 5. <input type="checkbox"/> nucleotide and or amino acid sequence listing in computer readable form |
| 3. <input type="checkbox"/> copy of general power of attorney; reference number, if any: | 6. <input checked="" type="checkbox"/> other (specify): Check and Receipt Card |

Box No. VII SIGNATURE OF APPLICANT, AGENT OR COMMON REPRESENTATIVE

Next to each signature, indicate the name of the person signing and the capacity in which the person signs (if such capacity is not obvious from reading the demand).



Patrick C. Keane

Registration No. 32,858

For International Preliminary Examining Authority use only

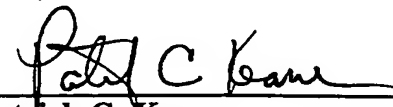
- | | |
|--|---|
| 1. <input type="checkbox"/> Date of actual receipt of demand | |
| 2. <input type="checkbox"/> Adjusted date of receipt of demand due to CORRECTIONS under Rule 60.1(b): | |
| 3. <input type="checkbox"/> The date of receipt of the demand is AFTER the expiration of 19 months from the priority date and item 4 or 5, below, does not apply. | <input type="checkbox"/> The applicant has been informed accordingly. |
| 4. <input type="checkbox"/> The date of receipt of the demand is WITHIN the period of 19 months from the priority date as extended by virtue of Rule 80.5. | |
| 5. <input type="checkbox"/> Although the date of receipt of the demand is after the expiration of 19 months from the priority date, the delay in arrival is EXCUSED pursuant to Rule 82. | |

For International Bureau use only

Demand received from IPEA on:

FEE CALCULATION SHEET

Annex to the Demand for international preliminary examination

International application No. PCT/US00/23974	For International Preliminary Examining Authority use only
Applicant's or agent's file reference 032657-002	Date stamp of the IPEA
Applicant NETTALON SECURITY SYSTEMS, INC. et al.	
Calculation of prescribed fees	
1. Preliminary examination fee	<div style="border: 1px solid black; padding: 2px; display: inline-block;">\$490.00</div> <div style="border: 1px solid black; padding: 2px; display: inline-block; margin-left: 10px;">P</div>
2. Handling fee (<i>Applicants from certain States are entitled to a reduction of 75% of the handling fee. Where the applicant is (or all applicants are) so entitled, the amount to be entered at H is 25% of the handling fee.</i>)	<div style="border: 1px solid black; padding: 2px; display: inline-block;">\$137.00</div> <div style="border: 1px solid black; padding: 2px; display: inline-block; margin-left: 10px;">H</div>
3. Total of prescribed fees Add the amounts entered at P and H and enter total in the TOTAL box	<div style="border: 1px solid black; padding: 2px; display: inline-block;">\$627.00</div> <div style="border: 1px solid black; padding: 2px; display: inline-block;">TOTAL</div>
Mode of Payment	
<input checked="" type="checkbox"/> authorization to charge deposit account with the IPEA (see below)	<input type="checkbox"/> cash
<input checked="" type="checkbox"/> cheque	<input type="checkbox"/> revenue stamps
<input type="checkbox"/> postal money order	<input type="checkbox"/> coupons
<input type="checkbox"/> bank draft	<input type="checkbox"/> other (specify):
Deposit Account Authorization (<i>this mode of payment may not be available at all IPEAs</i>)	
The IPEA/ <u>US</u> <input type="checkbox"/> is hereby authorized to charge the total fees indicated above to my deposit account	
<input checked="" type="checkbox"/> (<i>this check-box may be marked only if the conditions for deposit accounts of the IPEA so permit</i>) is hereby authorized to charge any deficiency or credit any overpayment in the total fees indicated above to my deposit account.	
02-4800 Deposit Account Number	30 March 2001 Date (day/month/year)
<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="text-align: center;">  Patrick C. Keane </div> <div> Registration No. 32,858 </div> </div>	

PCT REQUEST

032657-002

Original (for **SUBMISSION**) - printed on 01.09.2000 11:39:26 AM

0	For receiving Office use only	
0-1	International Application No.	
0-2	International Filing Date	
0-3	Name of receiving Office and "PCT International Application"	
0-4	Form - PCT/RO/101 PCT Request	
0-4-1	Prepared using	PCT-EASY Version 2.91 (updated 01.07.2000)
0-5	Petition The undersigned requests that the present international application be processed according to the Patent Cooperation Treaty	
0-6	Receiving Office (specified by the applicant)	United States Patent and Trademark Office (USPTO) (RO/US)
0-7	Applicant's or agent's file reference	032657-002
I	Title of invention	METHOD AND APPARATUS FOR REMOTELY MONITORING A SITE
II	Applicant	
II-1	This person is:	applicant only
II-2	Applicant for	all designated States except US
II-4	Name	NETTALON SECURITY SYSTEMS, INC.
II-5	Address:	3307 Bourbon Street Fredericksburg, VA 22408 United States of America
II-6	State of nationality	US
II-7	State of residence	US
II-8	Telephone No.	(877) 638-8256
II-9	Facsimile No.	(540) 368-5294
III-1	Applicant and/or inventor	
III-1-1	This person is:	applicant and inventor
III-1-2	Applicant for	US only
III-1-4	Name (LAST, First)	KIMMEL, David, E.
III-1-5	Address:	10110 Oat Lands Place Fredericksburg, VA 22408 United States of America
III-1-6	State of nationality	US
III-1-7	State of residence	US

PCT REQUEST

032657-002

Original (for SUBMISSION) - printed on 01.09.2000 11:39:26 AM

III-2	Applicant and/or inventor	
III-2-1	This person is:	applicant and inventor
III-2-2	Applicant for	US only
III-2-4	Name (LAST, First)	BYRNE, JR., James, T.
III-2-5	Address:	12306 Running Deer Road Manassas, VA 20112 United States of America
III-2-6	State of nationality	US
III-2-7	State of residence	US
III-3	Applicant and/or inventor	
III-3-1	This person is:	applicant and inventor
III-3-2	Applicant for	US only
III-3-4	Name (LAST, First)	JONES, JR., Donald, R.
III-3-5	Address:	Route 1, Box 376B New Canton, VA 23123 United States of America
III-3-6	State of nationality	US
III-3-7	State of residence	US
III-4	Applicant and/or inventor	
III-4-1	This person is:	applicant and inventor
III-4-2	Applicant for	US only
III-4-4	Name (LAST, First)	DUBOIS, Ronald
III-4-5	Address:	3076 Antrim Circle Dumfries, VA 22026 United States of America
III-4-6	State of nationality	US
III-4-7	State of residence	US
IV-1	Agent or common representative; or address for correspondence The person identified below is hereby/has been appointed to act on behalf of the applicant(s) before the competent International Authorities as:	agent
IV-1-1	Name (LAST, First)	SWECKER, Robert, S.
IV-1-2	Address:	BURNS, DOANE, SWECKER & MATHIS, LLP P.O. Box 1404 Alexandria, VA 22313-1404 United States of America
IV-1-3	Telephone No.	(703) 836-6620
IV-1-4	Facsimile No.	(703) 836-2021
IV-2	Additional agent(s)	additional agent(s) with same address as first named agent
IV-2-1	Name(s)	KEANE, Patrick, C.

PCT REQUEST

032657-002

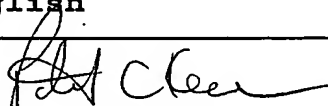
Original (for SUBMISSION) - printed on 01.09.2000 11:39:26 AM

V	Designation of States	
V-1	Regional Patent (other kinds of protection or treatment, if any, are specified between parentheses after the designation(s) concerned)	<p>AP: GH GM KE LS MW MZ SD SL SZ TZ UG ZW and any other State which is a Contracting State of the Harare Protocol and of the PCT</p> <p>EA: AM AZ BY KG KZ MD RU TJ TM and any other State which is a Contracting State of the Eurasian Patent Convention and of the PCT</p> <p>EP: AT BE CH&LI CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE and any other State which is a Contracting State of the European Patent Convention and of the PCT</p> <p>OA: BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG and any other State which is a member State of OAPI and a Contracting State of the PCT</p>
V-2	National Patent (other kinds of protection or treatment, if any, are specified between parentheses after the designation(s) concerned)	<p>AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH&LI CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW</p>
V-5	Precautionary Designation Statement In addition to the designations made under items V-1, V-2 and V-3, the applicant also makes under Rule 4.9(b) all designations which would be permitted under the PCT except any designation(s) of the State(s) indicated under item V-6 below. The applicant declares that those additional designations are subject to confirmation and that any designation which is not confirmed before the expiration of 15 months from the priority date is to be regarded as withdrawn by the applicant at the expiration of that time limit.	
V-6	Exclusion(s) from precautionary designations	NONE
VI-1	Priority claim of earlier national application	
VI-1-1	Filing date	01 September 1999 (01.09.1999)
VI-1-2	Number	09/387,496
VI-1-3	Country	US
VI-2	Priority document request The receiving Office is requested to prepare and transmit to the International Bureau a certified copy of the earlier application(s) identified above as item(s):	VI-1

PCT REQUEST

032657-002

Original (for SUBMISSION) - printed on 01.09.2000 11:39:26 AM

VII-1	International Searching Authority Chosen	United States Patent and Trademark Office (USPTO) (ISA/US)	
VIII	Check list	number of sheets	electronic file(s) attached
VIII-1	Request	4	-
VIII-2	Description	25	-
VIII-3	Claims	6	-
VIII-4	Abstract	1	abstract.txt
VIII-5	Drawings	12	-
VIII-7	TOTAL	48	
	Accompanying Items	paper document(s) attached	electronic file(s) attached
VIII-8	Fee calculation sheet	✓	-
VIII-16	PCT-EASY diskette	-	diskette
VIII-17	Other (specified):	Transmittal Letter	-
VIII-17	Other (specified):	Check	-
VIII-17	Other (specified):	Receipt Card	-
VIII-18	Figure of the drawings which should accompany the abstract		
VIII-19	Language of filing of the international application	English	
IX-1	Signature of applicant or agent		
IX-1-1	Name (LAST, First)	KEANE, Patrick, C.	

FOR RECEIVING OFFICE USE ONLY

10-1	Date of actual receipt of the purported international application	
10-2	Drawings:	
10-2-1	Received	
10-2-2	Not received	
10-3	Corrected date of actual receipt due to later but timely received papers or drawings completing the purported international application	
10-4	Date of timely receipt of the required corrections under PCT Article 11(2)	
10-5	International Searching Authority	ISA/US
10-6	Transmittal of search copy delayed until search fee is paid	

FOR INTERNATIONAL BUREAU USE ONLY

11-1	Date of receipt of the record copy by the International Bureau	
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PCT (ANNEX - FEE CALCULATION SHEET)

032657-002

Original (for SUBMISSION) - printed on 01.09.2000 11:39:26 AM

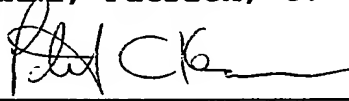
(This sheet is not part of and does not count as a sheet of the international application)

0	For receiving Office use only		
0-1	International Application No.		
0-2	Date stamp of the receiving Office		
0-4	Form - PCT/RO/101 (Annex)		
0-4-1	PCT Fee Calculation Sheet Prepared using	PCT-EASY Version 2.91 (updated 01.07.2000)	
0-9	Applicant's or agent's file reference	032657-002	
2	Applicant	NETTALON SECURITY SYSTEMS, INC., et al.	
12	Calculation of prescribed fees	fee amount/multiplier	total amounts (USD)
12-1	Transmittal fee T	⇒	240
12-2	Search fee S	⇒	490
12-3	International fee Basic fee (first 30 sheets) b1	427	
12-4	Remaining sheets	18	
12-5	Additional amount (X)	10	
12-6	Total additional amount b2	180	
12-7	b1 + b2 = B	607	
12-8	Designation fees Number of designations contained in international application	87	
12-9	Number of designation fees payable (maximum 8)	8	
12-10	Amount of designation fee (X)	92	
12-11	Total designation fees D	736	
12-12	PCT-EASY fee reduction R	-132	
12-13	Total International fee (B+D-R) I	⇒	1211
12-14	Fee for priority document Number of priority documents requested	1	
12-15	Fee per document (X)	15	
12-16	Total priority document fee P	⇒	15
12-17	TOTAL FEES PAYABLE (T+S+I+P)	⇒	1956
12-19	Mode of payment	cheque	
12-20	Deposit account instructions The receiving Office:	United States Patent and Trademark Office (USPTO) (RO/US)	
12-20-2	is hereby authorized to charge any deficiency or credit any over-payment in the total fees indicated above to my deposit account	✓	
12-21	Deposit account No.	02-4800	
12-22	Date	01 September 2000 (01.09.2000)	

PCT (ANNEX - FEE CALCULATION SHEET)

032657-002

Original (for SUBMISSION) - printed on 01.09.2000 11:39:26 AM

12-23	Name and signature	KEANE, Patrick, C. 
-------	--------------------	--

VALIDATION LOG AND REMARKS

13-2-6	Validation messages Contents	Yellow! The power of attorney or a copy of the general power of attorney will need to be furnished unless all applicants sign the request form.
		Green? Figure of the drawings which should accompany the abstract not specified. Please verify.
13-2-7	Validation messages Fees	Green? Please confirm that fee schedule utilized is the latest available



P.B.5818 - Patentlaan 2
2280 HV Rijswijk (ZH)
☎ +31 70 340 2040
TX 31651 epo nl
FAX +31 70 340 3016

Europäisches
Patentamt

Eingangs-
stelle

Receiving
Section

Office européen
des brevets

Section de
Dépôt

SWECKER, Robert, S.
BURNS, DOANE, SWECKER & MATHIS, LLP
P.O. Box 1404
Alexandria, VA 22313-1404

ACK
032657-002

ETATS-UNIS D'AMERIQUE

Return/Date

16/03/01

Zeichen/Ref./Réf.	Anmeldung Nr./Application No./Demande n°/Patent Nr./Patent No./Brevet n°. 00964935.1- -PCT/US0023974
Anmelder/Applicant/Demandeur/Patentinhaber/Proprietor/Titulaire NETTALON SECURITY SYSTEMS, INC.	

ENTRY INTO THE EUROPEAN PHASE BEFORE THE EUROPEAN PATENT OFFICE

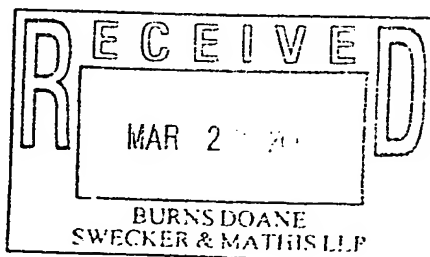
NOTE: These notes describes the procedural steps required for entry into the European phase before the European Patent Office (EPO). You are advised to read them carefully; failure to take the necessary action in time can lead to your application being deemed withdrawn.

1. European patent application no. 00964935.1 has been allotted to the above-mentioned international patent application.
2. Applicants WITHOUT a residence or their principal place of of business within the territory of an EPC Contracting State may themselves initiate European processing of their international application, provided they do so before expiry of the 21st or 31st month from the the priority date (see also point 7 below).

During the European phase before the EPO as designated or elected Office, however, such applicants must be represented by a professional representative (Articles 133(2) and 134(7) EPC).

Procedural acts performed after expiry of the 21st or 31st month by a professional representative who acted during the international phase but is not authorised to act before the EPO have no legal effect and therefore lead to loss of rights.

Please note that a professional representative authorised to act before the EPO and who acted for the applicant during the international phase does not automatically become the representative for the European phase. Applicants therefore strongly advised to appoint in good time any representative they wish to initiate the European phase for them; otherwise, the EPO has to send all communications direct to the applicant.





3. Applicants WITH a residence or their principal place of business within the territory of an EPC Contractin State are not obliged to appoint a professional representative authorised to act before the EPO for the European phase before the EPO as a designated or elected Office.
However, in view of the complexity of the procedure it is recommended that they do so.
4. Applicants and professional representatives are strongly advised to initiate the European phase using EPO Form 1200 (available free of charge from the EPO). This however is not compulsory.
5. TO ENTER THE EUROPEAN PHASE BEFORE THE EPO, the following acts must be performed. (NB: Failure validly to do so will entail loss of rights or other adverse legal consequences).
 - 5.1 If the EPO acting as DESIGNATED OFFICE under Article 22(1) PCT, applicants must, within 21 months from the date of filing or (where applicable) the earliest priority date:
 - a) Supply a translation of the international application into an EPO official language, if the International Bureau did not publish the application in such a language (Article 22(1) PCT and Rule 107(1)a) EPC).
If the translation is not filed in due time, the international application is deemed to be withdrawn before the EPO (Article 24(1)(iii) PCT).
 - b) Pay the national basic fee and, where a supplementary European search report has to be drawn up, the search fee (Rule 107(1)c) and e) EPC).
 - c) Within six months from publication of the international search report, pay a designation fee for each designated Contracting State (Rule 107(1)d) EPC), and file a written request for examination and pay the examination fee (Rule 107(1)f) EPC).

Anmeldung Nr./Application No./Demande n°./Patent Nr./Patent No./Brevet n°.	Blatt/Page/Feuille
00964935.1	2



- 5.2 If the EPO is acting as ELECTED OFFICE under Article 39(1)a) PCT, applicants must, within 31 months from the date of filing or (where applicable) the earliest priority date:
- a) File a translation as per 5.1 a) above.
 - b) Pay the fees as per 5.1 b) above.
 - c) If the time limit under Article 79(2) EPC expires before the 31-month time limit, pay the designation fee for each designated Contracting State (Rule 107(1)d) EPC).
 - d) If the time limit under Article 94(2) EPC expires before the 31-month time limit, file the written request for examination A N D pay the examination fee (Rule 107(1)f) EPC).
 - e) Pay the renewal fee for the third year, if it falls due before the expiry of the 21-month time limit (Rule 107(1)g) EPC)
- 5.3 If the application documents on which the European grant procedure is to be based comprise more than ten claims, a claims fee is payable within the time limit under Rule 107(1) EPC for the eleventh and each subsequent claim (Rule 110(1) EPC). The fee can however still be paid within a period of grace of one month from notification of an EPO communication (Rule 110(2) EPC).
6. If the necessary fees are not paid in time, they may still be validly paid within a period of grace of one month from notification of an EPO communication, subject to payment at the same time of a surcharge for each late-paid fee (Rule 85a(1), 85b EPC). For the renewal fee, the period of grace is six months from the fee's due date (Article 86(2) EPC).
7. If the applicant had a representative during the application's international phase, the present notes will be sent to the representative, asking him to inform the applicant accordingly.
- All subsequent communications will be sent to the applicant, or - if the EPO is informed of his appointment in time - to the applicants' European representative.

Anmeldung Nr./Application No./Demande n°./Patent Nr./Patent No./Brevet n°.	Blatt/Page/Feuille
00964935.1	3



8. For more details about time limits and procedural acts before the EPO as designated and elected Office, see the EPO brochure

How to get a European patent
Guide for applicants - Part 2
PCT procedure before the EPO - "EURO-PCT"

This brochure, the list of professional representatives before the EPO, Form 1200 and the latest fees are all on the internet under

<http://www.european-patent-office.org>.

RECEIVING SECTION



Anmeldung Nr./Application No./Demande n°./Patent Nr./Patent No./Brevet n°.	Blatt/Page/Feuille
00964935.1	4

PATENT COOPERATION TREATY

From the INTERNATIONAL SEARCHING AUTHORITY

To: ROBERT S. SWECKER
BURNS, DOANE, SWECKER & MATHIS, LLP
P.O. BOX 1404
ALEXANDRIA VA 22313-1404

PCK

BURNS, DOANE, SWECKER & MATHIS, LL
RECEIVED

JAN 19 2001

PCT

DOCKETED 1/19/01

NOTIFICATION OF TRANSMITTAL OF THE INTERNATIONAL SEARCH REPORT OR THE DECLARATION

(PCT Rule 44.1)

Date of Mailing
(day/month/year)

16 JAN 2001

Applicant's or agent's file reference

032657-002

FOR FURTHER ACTION See paragraphs 1 and 4 below

International application No.

PCT/US00/23974

International filing date
(day/month/year)

01 SEPTEMBER 2000

Applicant

NETTALON SECURITY SYSTEMS, INC.

1. ☒ The applicant is hereby notified that the international search report has been established and is transmitted herewith.

Filing of amendments and statement under Article 19:

The applicant is entitled, if he so wishes, to amend the claims of the international application (see Rule 46):

When? The time limit for filing such amendments is normally 2 months from the date of transmittal of the international search report; however, for more details, see the notes on the accompanying sheet.

Where? Directly to the International Bureau of WIPO
34, chemin des Colombettes
1211 Geneva 20, Switzerland
Facsimile No.: (41-22) 740.14.35

For more detailed instructions, see the notes on the accompanying sheet.

2. ☐ The applicant is hereby notified that no international search report will be established and that the declaration under Article 17(2)(a) to that effect is transmitted herewith.

3. ☐ With regard to the protest against payment of (an) additional fee(s) under Rule 40.2, the applicant is notified that:

☐ the protest together with the decision thereon has been transmitted to the International Bureau together with the applicant's request to forward the texts of both the protest and the decision thereon to the designated Offices.

☐ no decision has been made yet on the protest; the applicant will be notified as soon as a decision is made.

4. **Further action(s):** The applicant is reminded of the following:

Shortly after 18 months from the priority date, the international application will be published by the International Bureau. If the applicant wishes to avoid or postpone publication, a notice of withdrawal of the international application, or of the priority claim, must reach the International Bureau as provided in rules 90 *bis* 1 and 90 *bis* 3, respectively, before the completion of the technical preparations for international publication.

Within 19 months from the priority date, a demand for international preliminary examination must be filed if the applicant wishes to postpone the entry into the national phase until 30 months from the priority date (in some Offices even later).

Within 20 months from the priority date, the applicant must perform the prescribed acts for entry into the national phase before all designated Offices which have not been elected in the demand or in a later election within 19 months from the priority date or could not be elected because they are not bound by Chapter II.

Name and mailing address of the ISA/US
Commissioner of Patents and Trademarks
Box PCT
Washington, D.C. 20231

Facsimile No. (703) 305-3230

Authorized officer:

DARYL C. POPE

DOCKETED

Telephone No. (703) 305-4838

Form PCT/ISA/220 (July 1998) *

Article 19 Amendment
Due - 3/16/01
(See notes on accompanying sheet)

PATENT COOPERATION TREATY

From the INTERNATIONAL SEARCHING AUTHORITY

To: ROBERT S. SWECKER
BURNS, DOANE, SWECKER & MATHIS, LLP
P.O. BOX 1404
ALEXANDRIA VA 22313-1404

PCT

NOTIFICATION OF TRANSMITTAL OF THE INTERNATIONAL SEARCH REPORT OR THE DECLARATION

(PCT Rule 44.1)

Applicant's or agent's file reference 032657-002	Date of Mailing (day/month/year) 16 JAN 2001
International application No. PCT/US00/23974	International filing date (day/month/year) 01 SEPTEMBER 2000
Applicant NETTALON SECURITY SYSTEMS, INC.	

1. ☒ The applicant is hereby notified that the international search report has been established and is transmitted herewith.

Filing of amendments and statement under Article 19:
The applicant is entitled, if he so wishes, to amend the claims of the international application (see Rule 46):

When? The time limit for filing such amendments is normally 2 months from the date of transmittal of the international search report; however, for more details, see the notes on the accompanying sheet.

Where? Directly to the International Bureau of WIPO
34, chemin des Colombettes
1211 Geneva 20, Switzerland
Facsimile No.: (41-22) 740.14.35

For more detailed instructions, see the notes on the accompanying sheet.

2. ☐ The applicant is hereby notified that no international search report will be established and that the declaration under Article 17(2)(a) to that effect is transmitted herewith.

3. ☐ With regard to the protest against payment of (an) additional fee(s) under Rule 40.2, the applicant is notified that:

☐ the protest together with the decision thereon has been transmitted to the International Bureau together with the applicant's request to forward the texts of both the protest and the decision thereon to the designated Offices.

☐ no decision has been made yet on the protest; the applicant will be notified as soon as a decision is made.

4. **Further action(s):** The applicant is reminded of the following:

Shortly after 18 months from the priority date, the international application will be published by the International Bureau. If the applicant wishes to avoid or postpone publication, a notice of withdrawal of the international application, or of the priority claim, must reach the International Bureau as provided in rules 90 *bis* 1 and 90 *bis* 3, respectively, before the completion of the technical preparations for international publication.

Within 19 months from the priority date, a demand for international preliminary examination must be filed if the applicant wishes to postpone the entry into the national phase until 30 months from the priority date (in some Offices even later).

Within 20 months from the priority date, the applicant must perform the prescribed acts for entry into the national phase before all designated Offices which have not been elected in the demand or in a later election within 19 months from the priority date or could not be elected because they are not bound by Chapter II.

Name and mailing address of the ISA/US Commissioner of Patents and Trademarks Box PCT Washington, D.C. 20231	Authorized officer: DARYL C. POPE
Facsimile No. (703) 305-3230	Telephone No. (703) 305-4838

PATENT COOPERATION TREATY

REC'D 30 DEC 2002

WIPO

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INTERNATIONAL PRELIMINARY EXAMINATION REPORT

RECEIVED

MAY 06 2003

(PCT Article 36 and Rule 70)

Technology Center 2100

Applicant's or agent's file reference 032657-002	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/US00/23974	International filing date (day/month/year) 01 SEPTEMBER 2000	Priority date (day/month/year) 01 SEPTEMBER 1999
International Patent Classification (IPC) or national classification and IPC IPC(7): G08B 29/00 and US Cl.: 340/506		
Applicant NETTALON SECURITY SYSTEMS, INC.		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 3 sheets.

☐ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority. (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of — sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of report with regard to novelty, inventive step or industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand 30 MARCH 2001	Date of completion of this report 16 DECEMBER 2002
Name and mailing address of the IPEA/US Commissioner of Patents and Trademarks Box PCT Washington, D.C. 20231 Facsimile No. (703) 305-3230	Authorized officer DARYL C. POPE <i>Rugenis Zogian</i> Telephone No. (703) 305-3333

I. Basis of the report**1. With regard to the elements of the international application:***☒ the international application as originally filed☒ the description:pages 1-25 , as originally filedpages NONE , filed with the demandpages NONE , filed with the letter of _____☒ the claims:pages 26-31 , as originally filedpages NONE , as amended (together with any statement) under Article 19pages NONE , filed with the demandpages NONE , filed with the letter of _____☒ the drawings:pages 1-12 , as originally filedpages NONE , filed with the demandpages NONE , filed with the letter of _____☒ the sequence listing part of the description:pages NONE , as originally filedpages NONE , filed with the demandpages NONE , filed with the letter of _____**2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.**

These elements were available or furnished to this Authority in the following language _____ which is:

☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).☐ the language of publication of the international application (under Rule 48.3(b)).☐ the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/or 55.3).**3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:**☐ contained in the international application in printed form.☐ filed together with the international application in computer readable form.☐ furnished subsequently to this Authority in written form.☐ furnished subsequently to this Authority in computer readable form.☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.**4. ☒ The amendments have resulted in the cancellation of:**☒ the description, pages NONE☒ the claims, Nos. NONE☒ the drawings, sheets/fig NONE**5. ☐ This report has been drawn as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).****

* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17).

**Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/US00/23974

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. statement

Novelty (N)	Claims	<u>NONE</u>	YES
	Claims	<u>1-33</u>	NO
Inventive Step (IS)	Claims	<u>NONE</u>	YES
	Claims	<u>1-33</u>	NO
Industrial Applicability (IA)	Claims	<u>1-33</u>	YES
	Claims	<u>NONE</u>	NO

2. citations and explanations (Rule 70.7)

Claims 1-33 lack novelty under PCT Article 33(2) as being anticipated by Launey et al(Launey). In figure 1 Launey shows a monitoring system including security panel(56), ethernet network(50), graphics interface(54), sensors(27,29,48a,48b), mobile computer(52A,52B,52C)(see: column 4, lines 1-58).

____ NEW CITATIONS _____
NONE

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 032657-002	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> FOR FURTHER ACTION </div> <div style="width: 50%;"> see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below. </div> </div>
International application No. PCT/US00/23974	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> International filing date (<i>day/month/year</i>) 01 SEPTEMBER 2000 </div> <div style="width: 50%;"> (Earliest) Priority Date (<i>day/month/year</i>) 01 SEPTEMBER 1999 </div> </div>
Applicant NETTALON SECURITY SYSTEMS, INC.	

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 3 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

- a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
- ☐ the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).
- b. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international search was carried out on the basis of the sequence listing:
- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

2. ☐ Certain claims were found unsearchable (See Box I).

3. ☐ Unity of invention is lacking (See Box II).

4. With regard to the title,

- ☒ the text is approved as submitted by the applicant.
- ☐ the text has been established by this Authority to read as follows:

5. With regard to the abstract,

- ☐ the text is approved as submitted by the applicant.
- ☒ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the drawings to be published with the abstract is Figure No. 3

- ☐ as suggested by the applicant.
- ☒ because the applicant failed to suggest a figure.
- ☐ because this figure better characterizes the invention.
- ☐ None of the figures.

Box III TEXT OF THE ABSTRACT (Continuation of item 5 of the first sheet)

The technical features mentioned in the abstract do not include a reference sign between parentheses (PCT Rule 8.1(d)).

The abstract is too long (PCT Rule 8.1(b)). The abstract must be less than 150 words, or 200 words when no Figure is to be published.

NEW ABSTRACT

The present invention is directed to providing systems and methods for remotely monitoring sites to provide real time information which can readily permit false alarms to be distinguished, and which can identify and track the precise location of an alarm. In exemplary embodiments, monitoring capabilities such as intrusion/fire detection and tracking capabilities, can be implemented through the use of multi-state indicators in a novel interface which permits information to be transmitted using standard network protocols(IP) from a remote site to a monitoring station in real-time over preexisting communication networks, such as the Internet(304). A wireless network(302) can also be established using browser encapsulated communication programs to transmit data packets which comply with any standard wireless local area network protocol(306). Communications can thereby be established between a web server(420) embedded in a centrally located host monitoring station(202) and a separate security panel(206).

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US00/23974

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : G08B 29/00

US CL : 340/506

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 340/506,517,521.539,541,825.06; 704/273,274

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5,086,385 A (LAUNEY et al) 04 February 1992, col. 4, lines 1-64	1-33



Further documents are listed in the continuation of Box C.



See patent family annex.

* Special categories of cited documents:	*T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
A document defining the general state of the art which is not considered to be of particular relevance	*X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
E earlier document published on or after the international filing date	*Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
L document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	*&* document member of the same patent family
O document referring to an oral disclosure, use, exhibition or other means	
P document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search

11 DECEMBER 2000

Date of mailing of the international search report

16 JAN 2001

Name and mailing address of the ISA/US
Commissioner of Patents and Trademarks
Box PCT
Washington, D.C. 20231

Facsimile No. (703) 305-3230

Authorized officer

DARYL C. POPE

Telephone No. (703) 305-4838

NOTES TO FORM PCT/ISA/220 (continued)

The following examples illustrate the manner in which amendments must be explained in the accompanying letter:

1. [Where originally there were 48 claims and after amendment of some claims there are 51]:
"Claims 1 to 29, 31, 32, 34, 35, 37 to 48 replaced by amended claims bearing the same numbers; claims 30, 33 and 36 unchanged; new claims 49 to 51 added."
2. [Where originally there were 15 claims and after amendment of all claims there are 11]:
"Claims 1 to 15 replaced by amended claims 1 to 11."
3. [Where originally there were 14 claims and the amendments consist in cancelling some claims and in adding new claims]:
"Claims 1 to 6 and 14 unchanged; claims 7 to 13 cancelled; new claims 15, 16 and 17 added." or
"Claims 7 to 13 cancelled; new claims 15, 16 and 17 added; all other claims unchanged."
4. [Where various kinds of amendments are made]:
"Claims 1-10 unchanged; claims 11 to 13, 18 and 19 cancelled; claims 14, 15 and 16 replaced by amended claim 14; claim 17 subdivided into amended claims 15, 16 and 17; new claims 20 and 21 added."

"Statement under Article 19(1)" (Rule 46.4)

The amendments may be accompanied by a statement explaining the amendments and indicating any impact that such amendments might have on the description and the drawings (which cannot be amended under Article 19(1)).

The statement will be published with the international application and the amended claims.

The statement should be brief, it should not exceed 500 words if in English or if translated into English.

It should not be confounded with and does not replace the letter indicating the differences between the claims as filed and as amended. It must be filed on a separate sheet and must be identified as such by a heading, preferably by using the words "Statement under Article 19(1)."

It should not contain any disparaging comments on the international search report or the relevance of citations contained in that report. Reference to citations, relevant to a given claim, contained in the international search report may be made only in connection with an amendment of that claim.

In what language ?

The amendments must be made in the language in which the international application is published. The letter and any statement accompanying the amendments must be in the same language as the international application if that language is English or French; otherwise, it must be in English or French, at the choice of the applicant.

Consequence if a demand for international preliminary examination has already been filed ?

If, at the time of filing any amendments under Article 19, a demand for international preliminary examination has already been submitted, the applicant must preferably, at the same time of filing the amendments with the International Bureau, also file a copy of such amendments with the International Preliminary Examining Authority (see Rule 62.2(a), first sentence).

Consequence with regard to translation of the international application for entry into the national phase ?

The applicant's attention is drawn to the fact that, where upon entry into the national phase, a translation of the claims as amended under Article 19 may have to be furnished to the designated/elected Offices, instead of, or in addition to, the translation of the claims as filed.

For further details on the requirements of each designated/elected Office, see Volume II of the PCT Applicant's Guide.

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
8 March 2001 (08.03.2001)

PCT

(10) International Publication Number
WO 01/16912 A1

(51) International Patent Classification⁷: G08B 29/00

(21) International Application Number: PCT/US00/23974

(22) International Filing Date:
1 September 2000 (01.09.2000)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
09/387,496 1 September 1999 (01.09.1999) US

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SWECKER & MATHIS, LLP, P.O. Box 1404, Alexandria,
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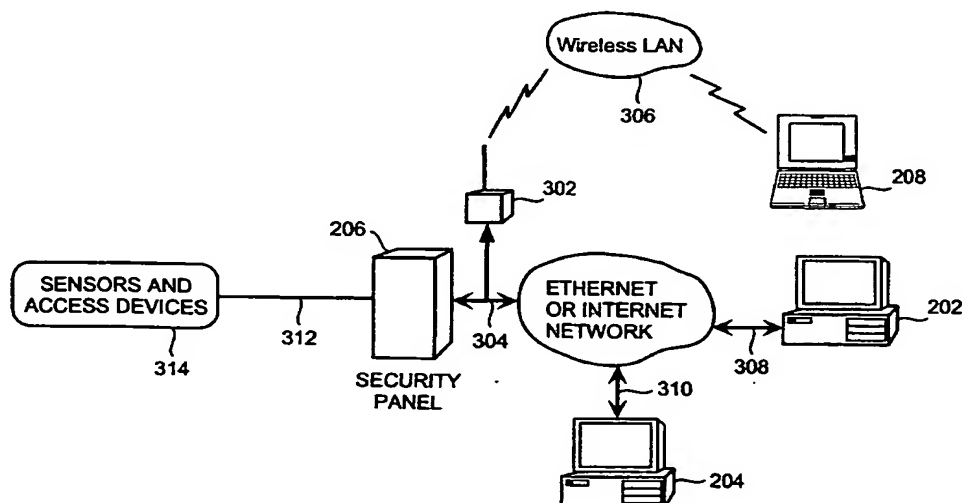
(81) Designated States (national): AE, AG, AL, AM, AT, AU,
AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ,
DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR,
HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ,
NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM,
TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW.

(84) Designated States (regional): ARIPO patent (GH, GM,
KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian
patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European
patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE,
IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG,
CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

Published:
— With international search report.

[Continued on next page]

(54) Title: METHOD AND APPARATUS FOR REMOTELY MONITORING A SITE



(57) Abstract: The present invention is directed to providing systems and methods for remotely monitoring sites to provide real time information which can readily permit false alarms to be distinguished, and which can identify and track the precise location of an alarm. In exemplary embodiments, monitoring capabilities such as intrusion/fire detection and tracking capabilities, can be implemented through the use of multistate indicators in a novel interface which permits information to be transmitted using standard network protocols (IP) from a remote site to a monitoring station in real-time over preexisting communication networks, such as the Internet (304). A wireless network (302) can also be established using browser encapsulated communication programs to transmit data packets which comply with any standard wireless local area network protocol (306). Communications can thereby be established between a web server (420) embedded in a centrally located host monitoring station (202) and a separate security panel (206).

WO 01/16912 A1

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

METHOD AND APPARATUS FOR REMOTELY MONITORING A SITE

BACKGROUND OF THE INVENTION

Field of The Invention:

The present invention relates generally to monitoring a remote site. More particularly, the present invention is directed to monitoring a remote site by providing real time transmission of outputs from a plurality of digital and/or analog multistate sensors which detect intrusion and/or fire, and communicate this information in an efficient, and effective format.

Background Information:

Existing intrusion detection systems and their respective monitoring stations typically provide binary off/on alert information to the user. Known security systems employ binary status detection devices due to the availability and low cost of these sensors, and report only active (versus inactive) alarm status information. For example, an indicator, such as a lamp or audible output, is on when a particular sensor is tripped, and is off when the sensor is reset. Some known methods capture dynamic point state transitions using, for example, latching sensors that hold a transition state for a limited period of time, then reset automatically.

Systems that offer more detailed information resort to specialized communication protocols and proprietary interconnection solutions. For example, monitoring systems for property protection and surveillance are known which transmit live audio and/or video data. However, because a large number of video surveillance cameras is not only cost prohibitive, but generates large quantities of data that cannot be easily transmitted to remote monitoring sites in real time, these systems have not achieved the wide spread use associated with binary off/on systems.

-2-

Systems that supply binary off/on alert information, even sophisticated systems that employ multiple sensors in a monitored space, only resolve alert information to a particular sector, or zone, of the building under surveillance. Thus, information such as the precise location of a potential intruder, is not provided for responding police officers. More importantly, even when a large number of sensors is used to increase the resolution of alert information, the use of binary on/off indicators prohibits any ability to track an intruder's movement through the building and yet still be able to resolve the current location of the intruder.

In addition, known binary off/on systems can not distinguish whether an alarm is real (i.e., genuine) or false. When police arrive on the scene of a building where an alarm was tripped, they do not know whether the alarm is real or false and they are blind to what is inside the building. Substantial time and money is expended in having police respond to large numbers of false alarms. In situations where the alarms are valid, the police do not know this for certain, and can be taken by surprise. They enter the building not knowing where the subject(s) might be.

The same drawbacks exists for fire monitoring and surveillance systems. Although fire alarm systems are often tied directly into the local fire company, the false/real alarm discrimination, exact location of the fire, and the movement of the fire are unknown to the fire company which receives and responds to the alarm.

Accordingly, it would be desirable to provide a system and method for monitoring a remote site, whereby the false/real alarms can be accurately distinguished, and whereby movement of intruders or fire can be reliably tracked while still pinpointing the precise location of the intruder

-3-

or fire. It would also be desirable to provide this information to monitoring sites, for use by responding personnel, in real time.

SUMMARY OF THE INVENTION

5 The present invention is directed to providing systems and methods for remotely monitoring sites to provide real time information which can readily permit false alarms to be distinguished, and which can identify and track the precise location of an alarm. In exemplary embodiments, monitoring capabilities such as intrusion/fire detection and tracking capabilities, can be implemented through the use of multistate indicators in
10 a novel interface which permits information to be transmitted using standard network protocols from a remote site to a monitoring station in real-time over preexisting communication networks, such as the Internet. A wireless network can also be established using browser encapsulated communication programs (for example, active X control, Java applets, and
15 so forth) to transmit data packets which comply with any standard wireless local area network protocol. Communications can thereby be established between a web server embedded in a centrally located host monitoring station and a separate security panel deployed in each of the buildings to be remotely monitored. In exemplary embodiments, communications can be
20 handed off from the centrally located host monitoring station to a mobile monitoring station (for example, to a laptop computer in a responding vehicle, such as a police or fire vehicle). The handoff can be such that direct communications are established between a security panel located at a site being monitored and the laptop (for example, over a cellular network),
25 or indirect communications can be established via the host monitoring station.

-4-

The network can be used to provide the primary visual alarm status reporting that gives the monitoring authority (user) the ability to identify the precise location of an intrusion/fire, and to distinguish false alarms. Multiple state, or multistate, indications are provided to represent a sensor. For example, each sensor can be identified as being: (1) currently in alarm; (2) currently in alarm and acknowledged by a monitor; (3) recently in alarm; (4) not in alarm; (5) disabled; or (6) a non-reporting alarm. With these multistate indications, the movements of an intruder or fire can be tracked, and yet the precise location of the intruder/fire can still be identified. This additional tracking ability gives police/firemen a tactical advantage at the scene as they know the location of the subject/fire and can track any subsequent movements as they close to make the arrest and or fight the fire.

Generally speaking, exemplary embodiments of the present invention are directed to a method and apparatus for monitoring a space, the apparatus comprising: a security panel located at the space, said security panel having a plurality of sensors; and a monitoring system for receiving real time information regarding the space from the security panel over a network using a network protocol, said monitoring system including a graphic interface to display said information as multistate outputs associated with each of said plurality of sensors.

In accordance with alternate embodiments, an apparatus is provided for monitoring a space comprising: a security panel located at the space; and a monitoring system for receiving real time information regarding the space from the security panel over a network, said monitoring system including a graphic interface to display information that distinguishes false alarms from actual alarms.

-5-

Exemplary embodiments provide updated information, in real time, regarding the status of sensors associated with point alarms included in the space being monitored. The graphical display of information can be provided as a hierarchical representation of network-to-site-to-point status using a plurality of tiered screen displays. The supervisory monitoring system can be configured as a central or distributed monitoring system including, but not limited to, the use of a base station host computer which can optionally direct information to the user via a cellular telephone network and/or via paging service in real-time. Alternate embodiments can also include security measures, such as the pseudo-randomizing of port access to the network to secure command and control communications.

BRIEF DESCRIPTION OF THE DRAWINGS

Other objects and advantages of the present invention will become more apparent to those skilled in the art upon reading the detailed description of the preferred embodiments, wherein like elements have been designated by like numerals, and wherein:

Figure 1 shows an exemplary graphics screen viewed through a security panel web page, wherein the graphics display contains a floorplan layout, with special icons overlaid on a bitmap to identify sensor points and their status;

Figure 2 shows a general overview of communications transpired between four basic subsystems;

Figure 3 show basic components of an exemplary system block diagram;

Figure 4 shows a detailed diagram of an exemplary host computer in a supervisory monitoring system;

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Figure 5 shows a detailed diagram of an exemplary remote computer;

Figure 6 shows a detailed diagram of an exemplary security panel;

Figure 7 shows a detailed diagram of an exemplary mobile computer;

Figure 8 shows an exemplary display screen;

Figure 9 shows exemplary communications between the security panel and the host computer;

Figure 10 shows exemplary communications between the host computer and the remote computer;

Figure 11 shows exemplary communications between the security panel and the remote computer; and

Figure 12 shows exemplary communications between the security panel and the mobile computer.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

1. Functional Overview

Before describing details of a system for implementing an exemplary embodiment of the invention, an overview of the invention will be provided using one exemplary display of information that is provided at a supervisory monitoring system's graphical user interface in accordance with the present invention. Referring to Figure 1, the graphical user interface provides a screen display 100 of a particular floor plan 102 in a building being monitored for intrusion and/or fire detection. In the Figure 1 example, a web browser included in the supervisory monitoring system is displaying a building floor plan 102 for an elementary school with its alarm points, and illustrates a two-person intrusion in progress. In this black/white rendition, points not in alarm are white circles 104. Two

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black circles 106, 108 indicate two points that are in simultaneous alarm. The gray filled circles 110, 112, 114 and 116 show alarms in a latched condition; that is, they were recently in alarm but, are not now in alarm.

Thus, at least three different states (for example, not in alarm; recently in alarm; and in alarm) are associated with the sensor located at each alarm point in the Figure 1 floorplan to provide a multistate indication for each alarm point at the user interface. Of course, those skilled in the art will appreciate that any number of states can be provided, such as additional states to represent inoperable or disabled alarm points. For example, as will be described with respect to an exemplary embodiment, six such states can be used.

The user can apply pattern discrimination through visual representation of alarm point conditions provided by the display at a moment in time, referenced herein as an "event slice", to precisely understand and convey the nature of the intrusion. By monitoring the display of alarm states, false alarms can be readily distinguished from genuine alarms (that is, actual intrusions and/or fires). For example, a mouse cursor associated with the supervisory monitoring system's graphical user interface can be positioned next to a particular alarm point icon to access additional alarm point information. This alarm point information can identify the type of sensor situated at the alarm point (for example, glass breakage detector, smoke detector, and so forth) and the room number or area can be identified.

The Figure 1 event slice associated with activity in the space being monitored (that is, a snapshot in time of a condition monitored at the graphical user interface), can be interpreted in the following manner:

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- a) The latch condition 110 represents a door sensor that has recently been in alarm and is now out of alarm;
- b) The latch condition 112 represents a motion detector that was recently in alarm and is now out of alarm;
- 5 c) The latch conditions 114 and 116 represent motion detectors in the same state as latch condition 112; these conditions inform the user of two separate tracks (i.e., paths) of an intruder (or spread of a fire);
- 10 d) The two points 106, 108 are in simultaneous alarm. By positioning the mouse cursor at each of these points, the user can determine that these points are, for example, motion detectors in Rooms 3 and 19 of the school, respectively.

15 An analysis summary can be displayed to indicate that an intrusion occurred at the front door and that there are at least two intruders, one going left up the North hall and the other going right down the East hall. The display indicates that the intruders are currently in Rooms 3 and 19. An ACTIVITY icon 118 can be selected to review details of all time event data for each alarm point including, for example, the exact times for the
20 break-in and the time frame of the intrusion for use by the user and/or law enforcement.

25 Real-time updates to the Figure 1 display can be continuously received by the supervisory monitoring system over a communication network, such as an Internet/Ethernet communication network, for the purpose of subsequent tracking. The supervisory monitoring system can include a host computer, configured with an embedded web server, that acts as the principal monitoring station for any number of security/fire

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alarm panels equipped with embedded web servers and located in one or more distinct spaces being monitored. Remote browsers, fixed and mobile, can also be linked into the system from authorized police, fire, and private security departments.

5 Intrusion detection, tracking and subject location are accomplished in accordance with exemplary embodiments of the present invention using known sensor technologies in conjunction with a novel notification process. For example, the alarm point state conditions can be categorized into six fundamentally different states:

- 10 (1) A point currently in an alarm state;
- (2) A point currently in an alarm state, and acknowledged by a monitor;
- (3) A point recently in an alarm state, but unacknowledged as a current alarm;
- 15 (4) A point not in an alarm state;
- (5) A point that has been disabled; and
- (6) A non-reporting point.

20 The last two states, disabled and non-reporting (or fail), represent inoperable point conditions. The remaining four active point conditions provide the monitoring operator a clear indication of which points are actively set into alarm, their simultaneity (multiple points of intrusion), and which alarms have been recently in a state of alarm but which are not currently in alarm. Each of the point conditions is represented on the screen display by a unique icon, combining shape and color for easy

25 recognition.

 Inoperable point conditions appear unobtrusive. They do not distract the operator from real-time alarms, but send a clear notification

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that these points are not contributing to the security monitoring process. When a point alarm is acknowledged by the supervisory monitoring station, the icon for that alarm point can be changed to appear less alerting (for example, change from a first color (such as, red) to a second color (such as, yellow)), allowing the operator to focus on new activity rather than the door that had been left open. The non-alarming point icon appears clearly visible, but not disturbing in color and shape. An icon that is alarming in color and shape represents the alarming point (unacknowledged).

While increasing the level of information displayed on the screen, the icons act as easily discernible symbols without cluttering the screen and confusing the operator. The increased level of information displayed provides the operator tools to recognize the presence of multiple intruders, the ability to discern a falsely-triggered alarm (isolated alarming sensor) from a legitimate alarm, and the visual "tracking" of their activity. The monitoring authority (user) can then apply pattern analysis to real-time changes in alarm states to discriminate between false and genuine alarms, and to track movement of an intruder or spread of a fire.

Generally speaking, a hierarchical approach can be used to pinpoint alarm conditions among plural spaces (for example, different buildings) being monitored. For example, a high level display can include a large geographical area, and can include indications of all facilities being monitored. Where any alarm in a given facility is tripped, the user can be notified in the high level display. By moving the cursor to that facility and clicking, a detailed floorplan such as that shown in Figure 1 can be provided to the user.

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The supervisory monitoring system can display an indication at the monitoring site's web browser within, for example, 1-4 seconds from the time a sensor located at the space being monitored is tripped into an alarm condition. A mouse click on the icon representing the facility in alarm
5 directs the system to retrieve, for browser display, a floor plan schematic (such as that of Figure 1) from the actual facility's security panel computer that displays all alarm points included in the facility and their current states. Subsequent changes in alarm point conditions are typically displayed in 1-4 seconds from the time an alarm is triggered in the facility.

10 Upon confirmation of activity, the monitoring authority can contact local law enforcement agencies that then direct an emergency response by hyperlinking to this same building visualization of alarm conditions using, for example, a remote browser located at the police/fire dispatch center. Responding officers at the scene can also access this visual display of alarm
15 conditions by linking to that facility's security panel through a wireless LAN hub protocol and encapsulated browser communication broadcast instructions. For example, browser encapsulated communications programs (e.g., active X control, Java applets, and so forth) can be used. By clicking on a MAP icon 120, maps showing directions to the facility, or any other
20 maps (such as complete floor plans of the facility) can be displayed.

In its fire monitoring role, the system can use the same encapsulated browser communication protocols to spawn real-time updates of changes in fire alarm points that are displayed visually on a monitoring site's web browser. Again, the visual display can be a building floor plan overlaid
25 with icons detailing all fire alarm point sensors. Pattern analysis can be used to discriminate a genuine alarm from a false one and to track the spread of a real fire. Like police, firefighters at the scene can access the

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visual display of alarm conditions through a local wireless LAN hub utilizing conventional wireless communication protocols, such as protocols conforming with the IEEE 802.11 protocol standard, and browser encapsulated communication programs such as active X control, Java applets and so forth.

Thus, electronic security and fire alarm protection can be provided which permits real emergencies to be distinguished, and which provides law enforcement and fire fighters with real-time on-the-scene information for arrest-in-progress and/or effective fire fighting. Encapsulated browser communication programs are used so that real-time conditions of security and/or fire alarm points in a remote protected facility can be displayed on a central supervisory monitoring station's web browser and/or on remote, authorized browsers.

On-the-scene wireless connectivity can also be used by responding police/fire response units where these units connect into the live visualization to tract the intruder(s) or fight the fire. In both security and fire monitoring, embedded maps accessed via the MAPS icon 120 assist in getting response units quickly to the scene. Once on the scene, police officers or firefighters can access the visualization of alarm activity through a wireless interface of a remote browser residing on a laptop computer and the building's security panel containing an embedded web server. In accordance with exemplary embodiments, a unique communication protocol combines a conventional wireless protocol, such as the 802.11 wireless protocol, with encapsulated browser communications.

Exemplary embodiments can provide interactive reporting of facility security information between four basic subsystems over an Internet/Ethernet communications link. The four subsystems are:

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(1) Security Panel

This subsystem directly monitors the status of individual sensors and reports their state to the requesting host, remote and mobile computer subsystems. Embedded web pages can be used to provide host, remote and mobile users detailed information on the site.

(2) Host Computer

This subsystem, through an embedded web server interface, provides a real-time display of a regional map depicting the location of all the sites within a security network and their status. Other remote subsystems used to remotely monitor the sites can gain access to the security panel at each site through the host computer web page. A local browser interface provides the host computer operator access to the same detailed information. Browser-encapsulated communications programs operating within the host maintain real-time status of the sites/alarm points and continually update the display screen.

(3) Remote Computer

This subsystem accesses the embedded web server within the host computer through, for example, an Internet browser program, which displays a map of the area sites and their current status. Using the mouse, a site can be selected to view the details of its status. Upon selection, the remote subsystem can be directly connected via a hyperlink to an embedded web server within the security panel. Similar to the host computer, the screen updates of site and point status

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is maintained through a browser-encapsulated communications program.

(4) Mobile Computer

The mobile computer can gain connectivity to the ethernet network local to the security panel through a wireless LAN, once it is within the operating range. "Broadcast packets" (for example, encrypted packets which can be decrypted by the mobile computer) can be sent by the security panel and be used to instruct the mobile computer how to directly access the security panel's web server through an Internet browser program. Once connected to the security panel web page, the mobile computer interface can operate like the remote computer.

2. General Communications Overview

Communications between the various subsystems are represented in Figure 2. Standard browser and web server tools are combined with unique graphics and communication programs to effect real-time performance through minimal bandwidth.

Figure 2 provides a general overview of the communications that transpire between the four basic subsystems; that is, (1) a host computer 202; (2) a remote computer 204; (3) security panel(s) 206; and (4) mobile computer 208. Communications between the host computer 202 and the security panel(s) are represented as communications 210, with arrows indicating the direction of information flow. For example, following a powerup indication from the security panel, and a connection by the host's local browser to the security panel's embedded web page, files regarding site information (such as floorplan) and alarm status information can be

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sent to the host. Similar protocols can be followed with respect to communications between the remaining subsystems. Communications between the host computer 202 and the remote computer 204 are represented as communications 212. Direct communications between the remote computer 204 and the security panel(s) 206 are represented as communications 214. Finally, direct communications between the security panel and the mobile computer are represented as communications 216.

Those skilled in the art will appreciate that the information flow represented by the various communications paths illustrated in Figure 2 are by way of example only, and that communications from any one or more of the four basic subsystems shown in Figure 2 can be provided with respect to any other one of the four basic groups shown, in any manner desired by the user. More detailed discussions of the specific communication paths in accordance with the exemplary embodiment illustrated in Figure 2 will be described with respect to Figures 9-12. However, for a general understanding of the basic communications, a brief overview will be provided with respect to Figure 2.

As illustrated in Figure 2, most intersubsystem communications are initiated by executing a conventional Internet browser program (such as Microsoft's Internet Explorer, or Netscape) in accordance with an exemplary embodiment that is represented in Figure 2 as an "Internet Browser". When the browser is directed to a specific site address (both the host computer and the security panel are assigned Internet protocol (IP) addresses), the browser software attempts to connect to the port at the IP address. The embedded web server at the addressed site recognizes the connect request at the port as a request to transfer the web page information (contained, for example, in a HTML file). Once transferred, the browser

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software begins to process the instructions within the HTML file. Within the file are references to a graphics file to be displayed and a communications program to be executed. If these files are not locally available, the browser software requests the transfer of the files from the host web server, using a hypertext transfer protocol (HTTP). Once received (and locally saved), the browser software displays and executes the files as directed by the HTML file.

The graphics files displayed serve as the bitmap background that the site and point status icons are written on, serving as visual status indicators to the monitoring operator. The communications program performs both the real-time communications between the subsystems and the painting of the status icons. When the communications reveal a change in point or site status, the screen icons are repainted to reflect the new conditions. These browser-encapsulated communication programs enable real-time performance over conventional communications networks such as the Internet.

3. System Overview

Figure 3 depicts a general system block diagram of an exemplary security system, comprised of the security panel 206, the host computer 202, the remote computer 204, the mobile computer 208, and an optional wireless LAN hub 302. The security panel is installed within the space (that is, the physical facility) being monitored, and is permanently connected to an Internet or Ethernet network 304. The wireless hub 302 can be installed at the facility site to provide connectivity for the mobile computer 208 via a wireless LAN 306. The host computer 202 can be installed anywhere so long as it is connected to the same Internet or Ethernet network 308 to which the security panel is attached. The remote

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computer 204 can be installed anywhere so long as it can access the same Internet or Ethernet network 310 to which the host computer and the security panel are attached (permanent, dial-up, and so forth). The mobile computer 208 must be within the coverage area of the wireless LAN hub to access the security panel over the wireless LAN 306.

The security panel 206 monitors the status of security sensors 314 installed within the monitored facility via data links 312. When an enabled sensor changes state, a POINT STATUS message is sent to the host computer 202. The host computer, usually monitored by an operator, repaints the icons shown on its display screen to reflect the updated condition of the security panel. Any mobile computer or remote computer currently connected to the security panel reporting the changed point condition can also repaint the icons on their own display after the next status query response.

a. Host Computer

Figure 4 details hardware and software components of an exemplary host computer 202. The CPU motherboard 402 for example, (e.g., based on Intel processor, such as 80486, Pentium I/II/III, or any other processor) is a conventional personal computer that will support any desired network operating system 414, such as any 32-bit operating system including, but not limited to the Microsoft NT Operating System 20. An exemplary motherboard will feature, or accommodate, Ethernet communications port 404 for interfacing with an Internet or Ethernet network. A hard disk 406 can be installed to support information storage. A keyboard and mouse 408 can be attached for operator interface. A display, such as an SVGA monitor can be attached via an analog or digital video graphics applications port 410 for a visual display unit. The NT Operating System 414 can be

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installed in a standard manner, along with the Internet Browser software package 416, such as Internet Explorer (any version, including version 5.0 or greater) available from Microsoft Corp. An embedded web server 420 is installed (such as the Microsoft personal web server or the GoAhead web server). A local cache directory 418 is installed with web page support tools: supporting graphic files (i.e. regional maps), encapsulated communications programs, local data files and any other desired information.

b. Remote Computer

Figure 5 details hardware and software components of the remote computer 204. The CPU motherboard 502 (e.g., based on Intel processor, such as 80486, Pentium I/II/III, or any other processor) is a conventional personal computer that will support the desired network operating system 504, such as any 32-bit operating system, including but not limited to the Microsoft NT Operating System 20. The motherboard will feature, or accommodate Ethernet communications 506 with an Internet or Ethernet network via Ethernet port 506. A hard disk 508 will support information storage. A keyboard and mouse 510 will provide operator interface. An SVGA monitor can be attached via port 512 for a visual display unit. The operating system 504 is installed in a standard manner, along with an Internet Browser software package, such as "Internet Explorer" package 514. A local cache directory 516 is installed with web page support tools: supporting graphic files (for example, individual room layouts, floorplans, side view of multi-story facility, and so forth), local data files, encapsulated communications programs, and local data files.

c. Security Panel

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Figure 6 details hardware and software components of the Security Panel 207. The CPU motherboard 602 (e.g., based on Intel processor, such as 80486, Pentium I/II/III, or any other processor) is a conventional personal computer that will support the desired network operating system 604 such as any 32-bit operating system including, but not limited to the Microsoft NT Operating System 20. The motherboard will feature, or accommodate Ethernet communications with an Internet or Ethernet network via Ethernet port 606. A hard disk 608 will support information storage. The operating system can be installed in a standard manner. A Windows compatible embedded web server 610 is installed (such as those available from GoAhead software). A main application program 612 is also installed, including local data files. Communications protocols, such as RS485 communications protocols 614, are supported to facilitate communications with the sensors, sensor controller and other access devices. As supporting inputs, video capture boards 616 and direct digital I/O boards 618 can be added to the local bus 620.

d. Mobile Computer

Figure 7 details the hardware and software components of the Mobile computer 208. The CPU motherboard 702 (e.g., based on Intel 80486, Pentium I/II/III, or any other processor) is a conventional laptop computer that will support the desired network operating system 704, such as any 32-bit operating system including, but not limited to the Microsoft NT Operating System 20. Add-on boards can be installed to interoperate with, for example, IEEE 802.11 Ethernet communications 706, compatible with the installed wireless hub 302 (shown in Figure 3). A hard disk 708 is installed to support information storage. An integral keyboard and mouse 710 are attached for operator interface. A display, such as an SVGA LCD

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monitor 712 is attached for a visual display unit. The operating system can be installed in a standard manner, along with any Internet browser software package 714, such as Internet Explorer (for example, version 5.0 or greater). A local cache directory 716 is installed with web page support tools: supporting graphic files (i.e. individual room layouts, floorplans, side view of multi-story facility, and so forth), local data files, encapsulated communications programs, and local data files.

e. Screen Display

Figure 8 details screen display graphic components. These components are common to the screens available to the host computer, remote computer and mobile computer users. These display components are made available through, for example, the use of standard browser technology, encapsulated graphics data and real-time communications programs. When the browser software initializes, it generates the window frame 802 on the display 800. When the browser addresses an embedded web page within the host computer or security panel, an HTML file is transferred. Within the HTML file is a reference to an encapsulated graphic image file 804 to be displayed. This file represents, for example, a regional map, the facility floorplan, or an individual room layout. Also referenced in the HTML file is the execution of an encapsulated communications program 806. This communications program is spawned and operates in tandem with the browser software, maintaining real-time communications with the site containing the embedded web page.

The communications software queries and monitors the condition of the panel/point status of the remote sites. Upon initialization, and as new status is received, the communications program "paints" new icons 806

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atop the graphics display, the icons representing the location and status of the depicted site/point.

In an exemplary embodiment, there are six states represented by the icons; (1) ALARM (point/site in alarm but not acknowledged), (2) ACKNOWLEDGED (ACK'D) ALARM (point/site in alarm and acknowledged by security monitor), (3) RECENT ALARM (point/site recently in alarm), (4) NORMAL (point/site not in alarm), (5) DISABLED (point/site disabled) and (6) FAIL (point/site not responding). These different states allow the monitoring user to determine the current and recent location of an intrusion, provide the visualization of multiple points of intrusion, and the ability to visually discriminate between legitimate and falsely-triggered alarms. All communications among the networked components are transferred using standardized data packets of any known network protocol.

4. System Communications

a. Security Panel-Host Communications

Figure 9 details the communications between the security panel 206 and the host computer 202. Upon the application of power, the security panel sends a PowerUp Message 902 to its designated host computer IP address. On regular intervals, the host computer sends a HEALTH STATUS REQUEST 904 datagram to each security panel. A repeated failure to receive a response packet 906 indicates to the host computer that the panel communications link has failed and its icon is updated. When received by the host computer, this message is logged into a local data file. When initially engaging communications with the security panel, the host computer sends a POINT STATUS REQUEST 908 to the security panel. Until an initial status has been determined, all icons are represented with an

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UNKNOWN icon (such as a circle with "?"). If the request repeatedly goes unanswered, the site is determined to be inoperative and is represented with a FAIL icon.

5 The successful receipt of the POINT STATUS response packet 910 causes the host computer to repaint the screen icons to represent their current determined condition. When an enabled point status has changed, the security panel sends a POINT STATUS message 912 to its designated host computer IP address. Upon its receipt, the host computer repaints the icons to represent the current status.

10 When a monitoring operator at the host computer wants to acknowledge an annunciated alarm condition, an ALARM ACK packet 50 is sent to the security panel, along with a reference to the alarm being acknowledged. When received by the security panel, the condition of the point is updated and a new POINT STATUS message 916 is sent back to the host computer. Again, the receipt of this packet causes the host
15 computer to repaint the icons on the screen. If the monitoring operator wants to disable a point, group of points, or an entire site, an ALARM DISABLE message 918 is sent (containing a mask reference for the point array). When received by the security panel, the point condition(s) is(are)
20 modified and a new POINT STATUS message 920 is sent in response. Its receipt by the host computer repaints the icons on the screen display.

b. Remote Computer-Host-Computer Communications

Figure 10 details communications between the remote computer 204 and the host computer 202. When the remote computer user wishes to
25 attach to the security system, it executes a compatible browser software package and connects to the Internet or Ethernet network (e.g., Internet Service Provider (ISP) dial-up, local hardwire, and so forth). When

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actively connected, the user directs the browser to the IP address of the host computer, seeking to connect to the host computer's web server 1002.

When accessed, the embedded web server software downloads the HTML file 1004 that defines the host and/or security panel web page(s).

5 The HTML file includes the reference of a graphics file. If the current version of the file does not locally exist, the remote computer browser makes a request 1006 for the HTTP transfer of the graphics file from the host computer. Once received from the host computer in transfer 1008, the graphics file is locally stored (in cache directory) and is displayed on the
10 browser screen. The HTML file then instructs the execution of a communications program. Again, if the current version of the file does not locally exist, the remote computer browser requests the HTTP transfer of the file from the host computer via request 1010.

15 Once received from the host computer in transfer 1012, the communications program file is locally stored and immediately executed at step 1014. This program runs in tandem with the existing browser software and does not prevent or hinder any normal browser activity. Once started, the communications program begins a continuous polling sequence, requesting the status of the various panel sites via requests 1016. When the
20 communications program receives the response status messages 1018, all the icons overlaying the graphics screen are repainted to indicate the current status of the sites. When the remote computer user selects the icon of a site for more detail, the browser software can immediately hyperlink to the IP address of the selected security panel (connecting to the embedded
25 web server within the panel in step 1020), and perform communications with the panel in a manner similar to that described with respect to the host computer and Figure 9.

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c. Remote-Security Panel Communications

Figure 11 details the communications between the remote computer 204 and the security panel 206. The remote computer gains access to the security panel through the host computer via a hyperlink connection. When selected, the browser is directed to the IP address of the security panel, seeking to connect to the security panel's embedded web page 1102. When accessed, the embedded web server software downloads the HTML file 1104 that defines the security panel's web page. The HTML file includes the reference of a graphics file. If the current version of the file does not locally exist, the remote computer browser requests the HTTP transfer of the graphics file 1106 from the security panel. Once received from the security panel in response 1108, the graphics file is locally stored (in cache directory) and is displayed on the browser screen. The HTML file then instructs the execution of a communications program. Again, if the current version of the file does not locally exist, the remote computer browser makes a request 1110 for the HTTP transfer of the file from the security panel. Once received from the security panel in response 1112, the communications program file is locally stored and immediately executed at 1114. This program runs in tandem with the existing browser software and does not prevent or hinder any normal browser activity.

Once started, the communications program begins a continuous polling sequence, requesting the status of the various points via a status request 1116. When the communications program receives the response status messages 1118, all the icons overlaying the graphics screen are repainted to indicate the current status of the points.

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d. Mobile-Security Panel Communications

Figure 12 details communications between the mobile computer 208 and the security panel 207. The mobile computer 208 gains access to the security panel through a wireless local area network, enabled by the wireless LAN hub 302 and/or any available wireless network including, but not limited to existing cellular telephone networks. The mobile computer browser software is executed, referencing a locally held web page 1202. The HTML file references both a graphics display file 1204 and an encapsulated communications program 1206 (which is already installed in the mobile computer). After the screen is painted with the graphics image, the communications program is executed at 1208. This program continues to search via the wireless interface card for a broadcast packet containing an address, such as an encrypted IP address, of the local security panel. Once the BROADCAST ADDRESS message 1210 is received by the mobile computer communications program, the address is decrypted and the browser is directed (hyperlinked 1212) to the IP address of the security panel. Execution after this point is identical to the remote-security panel communications, and reference is made to the description of Figure 9 regarding the connection activities.

It will be appreciated by those skilled in the art that the present invention can be embodied in other specific forms without departing from the spirit or essential characteristics thereof. The presently disclosed embodiments are therefore considered in all respects to be illustrative and not restricted. The scope of the invention is indicated by the appended claims rather than the foregoing description and all changes that come within the meaning and range and equivalence thereof are intended to be embraced therein.

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What Is Claimed Is:

1. Apparatus for monitoring a space, comprising:
a security panel located at the space, said security panel having a plurality of sensors; and
5 a monitoring system for receiving real time information regarding the space from the security panel over a network using a network protocol, said monitoring system including a graphic interface to display said information as multistate outputs associated with each of said plurality of sensors.
10
2. Apparatus according to claim 1, wherein the network is an Ethernet network.
3. Apparatus according to claim 1, wherein the monitoring
15 system includes encapsulated communications programs.
4. Apparatus according to claim 1, wherein said information is received using a standard Internet browser.
- 20 5. Apparatus according to claim 1, wherein said information is displayed using a bitmap representation of said space, with icons overlaid on said bitmap to identify said sensors and their status.
- 25 6. Apparatus according to claim 1, wherein said information is displayed using an icon on a display to represent a condition of each sensor.

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7. Apparatus according to claim 6, wherein said condition can be any of said multistate outputs, at least a first of said multistate outputs being an indication that a sensor is in an alarm condition, a second of said multistate outputs being an indication that said sensor was recently in an alarm condition, and a third of said multistate outputs being an indication that said sensor is not in an alarm condition.

8. Apparatus in accordance with claim 7, wherein said condition can further be an indication that said sensor has been disabled.

9. Apparatus in accordance with claim 7, wherein said condition can further be an indication that said sensor has been failed.

10. Apparatus in accordance with claim 1, wherein monitoring of said display can distinguish false alarms from genuine alarms.

11. Apparatus according to claim 1, wherein monitoring of said display can be used to track sequential activation of said sensors, yet provide information regarding the most recent sensor placed into an alarm condition.

12. Apparatus according to claim 1, comprising:
a remote monitoring system which can access said information.

13. Apparatus according to claim 1, comprising:
a mobile computer which can access said information.

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14. Apparatus according to claim 1, wherein said information can be displayed as a hierarchy of display screens, with at least one level of said hierarchy of screen displays showing multiple facilities being monitored, and with at least one additional level of said hierarchy providing access to floor plans for any of said facilities.

15. Apparatus according to claim 13, wherein said mobile computer includes:

means for accessing information contained within said security panel via use of an encrypted address message broadcast by at least one of said mobile computer and said security panel.

16. Apparatus according to claim 15, wherein said mobile computer accesses said information via a wireless network.

17. Apparatus according to claim 16, wherein said wireless network includes a cellular telephone network.

18. Apparatus for monitoring a space, comprising:
a security panel located at the space; and
a supervisory monitoring system for receiving real time information regarding the space from the security panel monitoring system over a network, said monitoring system including a graphic interface to display information that distinguishes false alarms from actual alarms.

19. Apparatus according to claim 18, wherein the network is an Ethernet network.

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20. Apparatus according to claim 18, wherein the monitoring system includes encapsulated communications programs.

21. Apparatus according to claim 18, wherein said information is received using a standard Internet browser.

22. Apparatus according to claim 18, wherein said information is displayed using a bitmap representation of said space, with icons overlaid on said bitmap to identify said sensors and their status.

23. Apparatus according to claim 18, wherein said information is displayed using an icon on a display to represent a condition of each sensor.

24. Apparatus according to claim 23, wherein said condition can be any one of multistate outputs, at least a first of said multistate outputs being an indication that a sensor is in an alarm condition, a second of said multistate outputs being an indication that said sensor was recently in an alarm condition, and a third of said multistate outputs being an indication that said sensor is not in an alarm condition.

25. Apparatus according to claim 18, wherein monitoring of said display can be used to track sequential activation of said sensors, yet provide information regarding the most recent sensor placed into an alarm condition.

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26. Apparatus according to claim 18, wherein said information can be displayed as a hierarchy of display screens, with at least one level of said hierarchy of screen displays showing multiple facilities being monitored, and with at least one additional level of said hierarchy providing access to floor plans for any of said facilities.

27. Apparatus according to claim 18, wherein said supervisory monitoring system is a mobile computer which includes:

means for accessing information contained within said security panel via use of an encrypted address message broadcast by at least one of said mobile computer and said security panel.

28. Method for monitoring a space, comprising the steps:
locally monitoring outputs from a plurality of sensors located at the space; and

transmitting information associated with a status of said sensors, in real time, over a network using a network protocol, to a supervisory monitoring system, said information representing multistate outputs associated with each of said plurality of sensors.

29. Method according to claim 28, wherein said information is transmitted using encapsulated communications programs and a standard Internet browser.

30. Method according to claim 28, wherein said information transmitted to said supervisory monitoring system is displayed at the

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supervisory monitoring system using a bitmap representation of said space, with icons overlaid on said bitmap to identify said sensors and their status.

31. Method according to claim 30, wherein a status of each of said sensors is constituted by any one of multistate outputs, at least a first of said multistate outputs being an indication that a sensor is in an alarm condition, a second of said multistate outputs being an indication that said sensor was recently in an alarm condition, and a third of said multistate outputs being an indication that said sensor is not in an alarm condition.

32. Method according to claim 28, wherein said information can be displayed at said supervisory monitoring system as a hierarchy of display screens, with at least one level of said hierarchy of screen displays showing multiple facilities being monitored, and with at least one additional level of said hierarchy providing access to floor plans for any of said facilities.

33. Method according to claim 28, wherein said supervisory monitoring system is a mobile computer which accesses information contained within a security panel at said space via use of an encrypted address message broadcast by at least one of said mobile computer and said security panel.

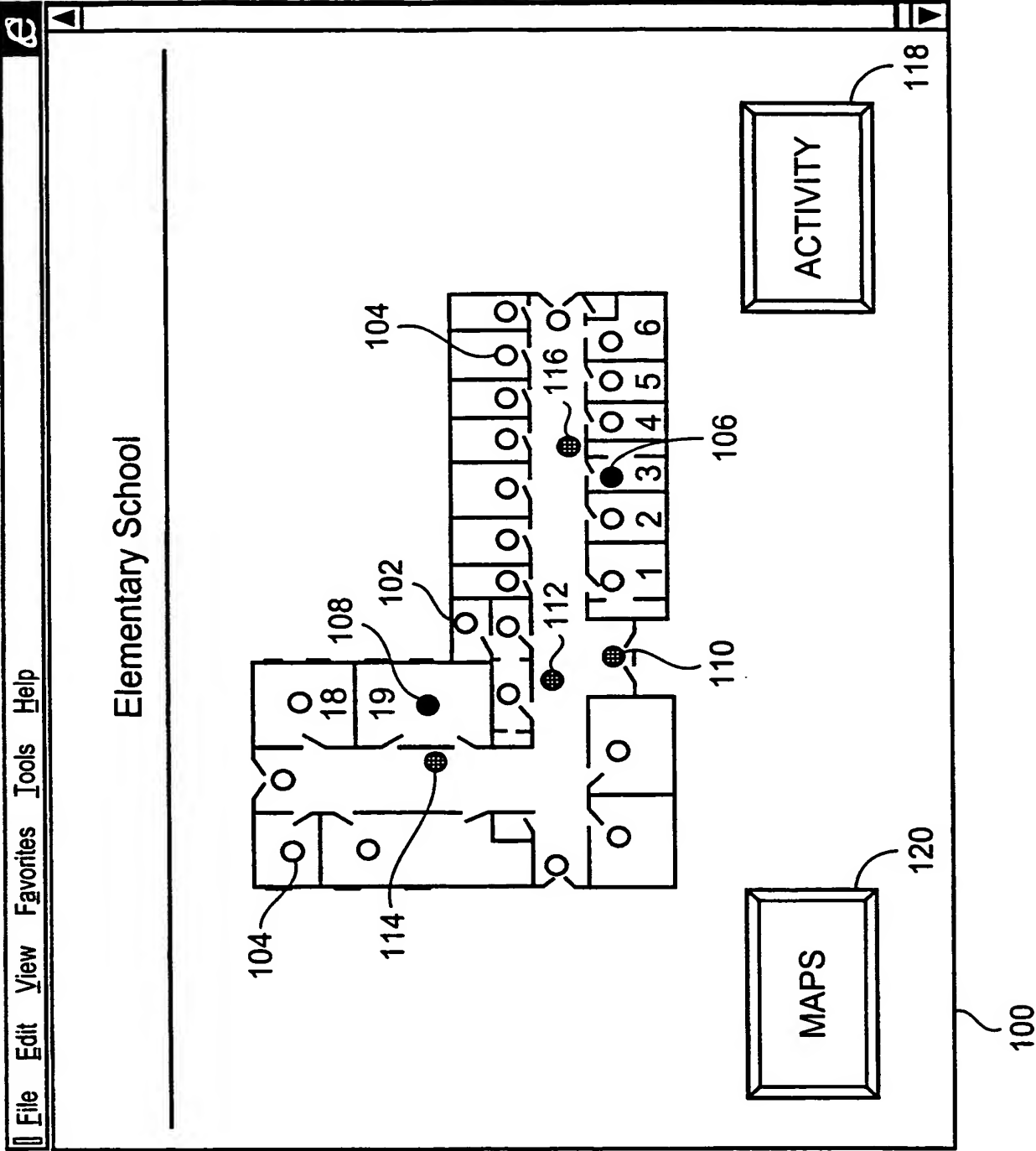


FIG. 1

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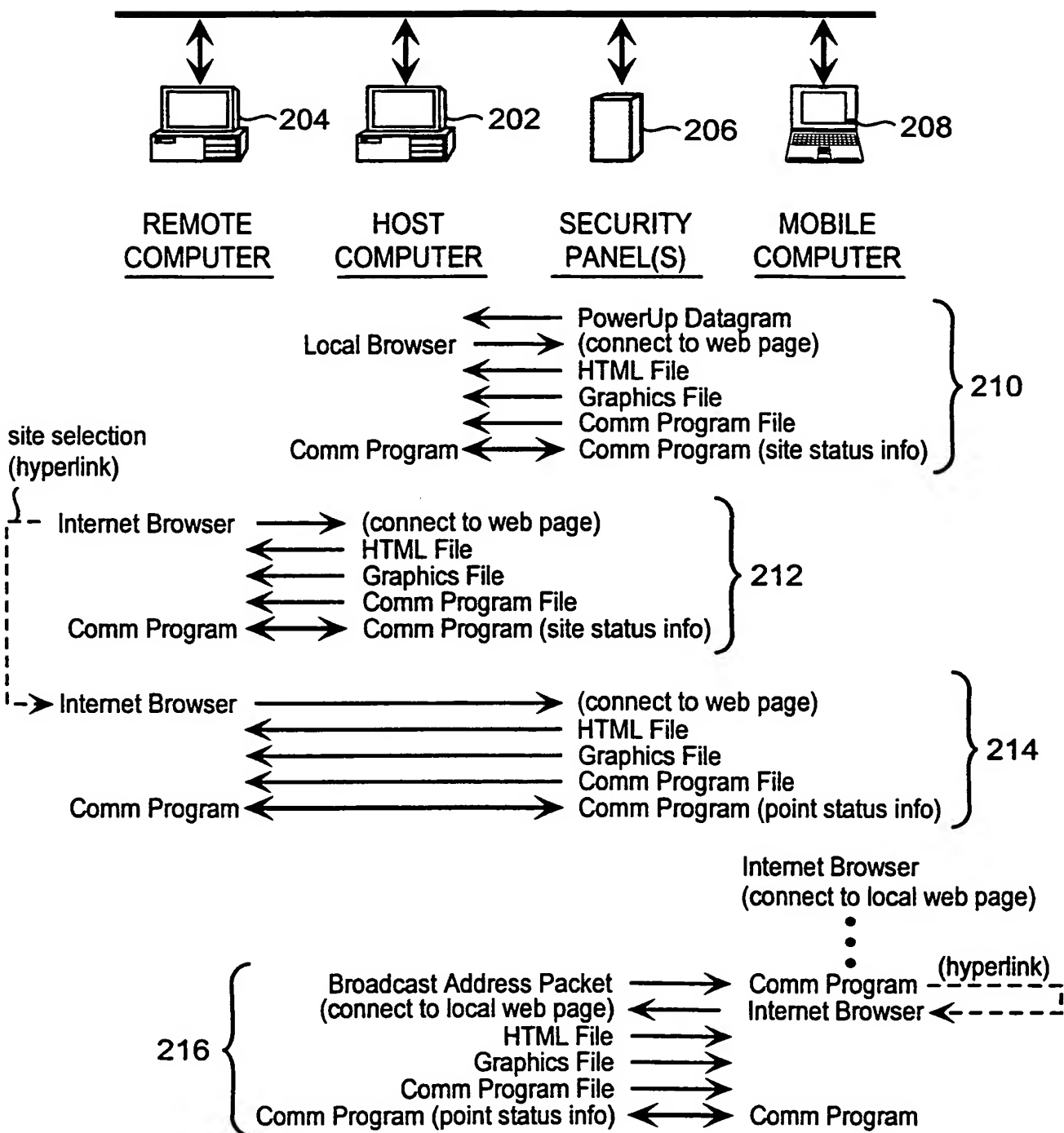


FIG. 2

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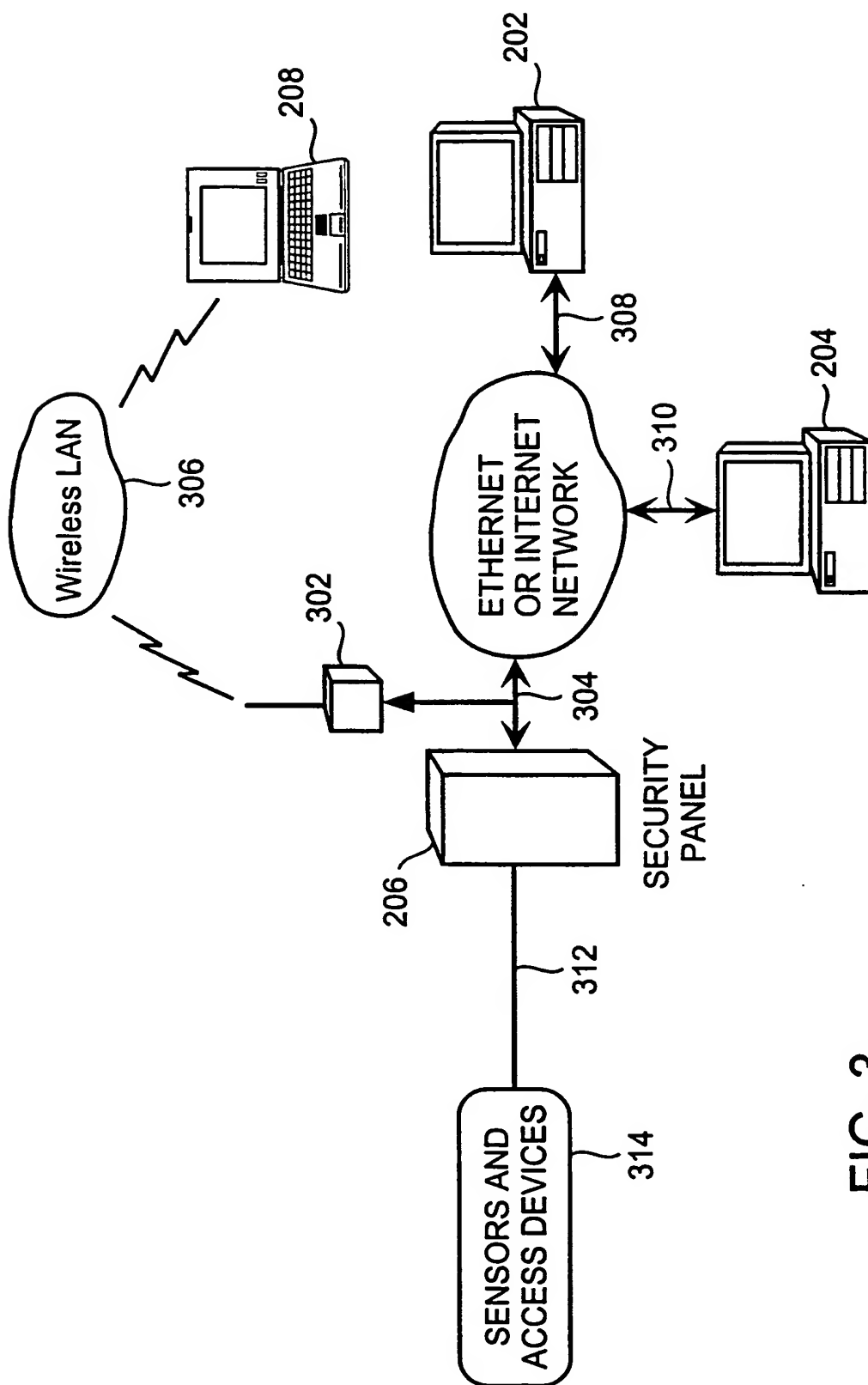


FIG. 3

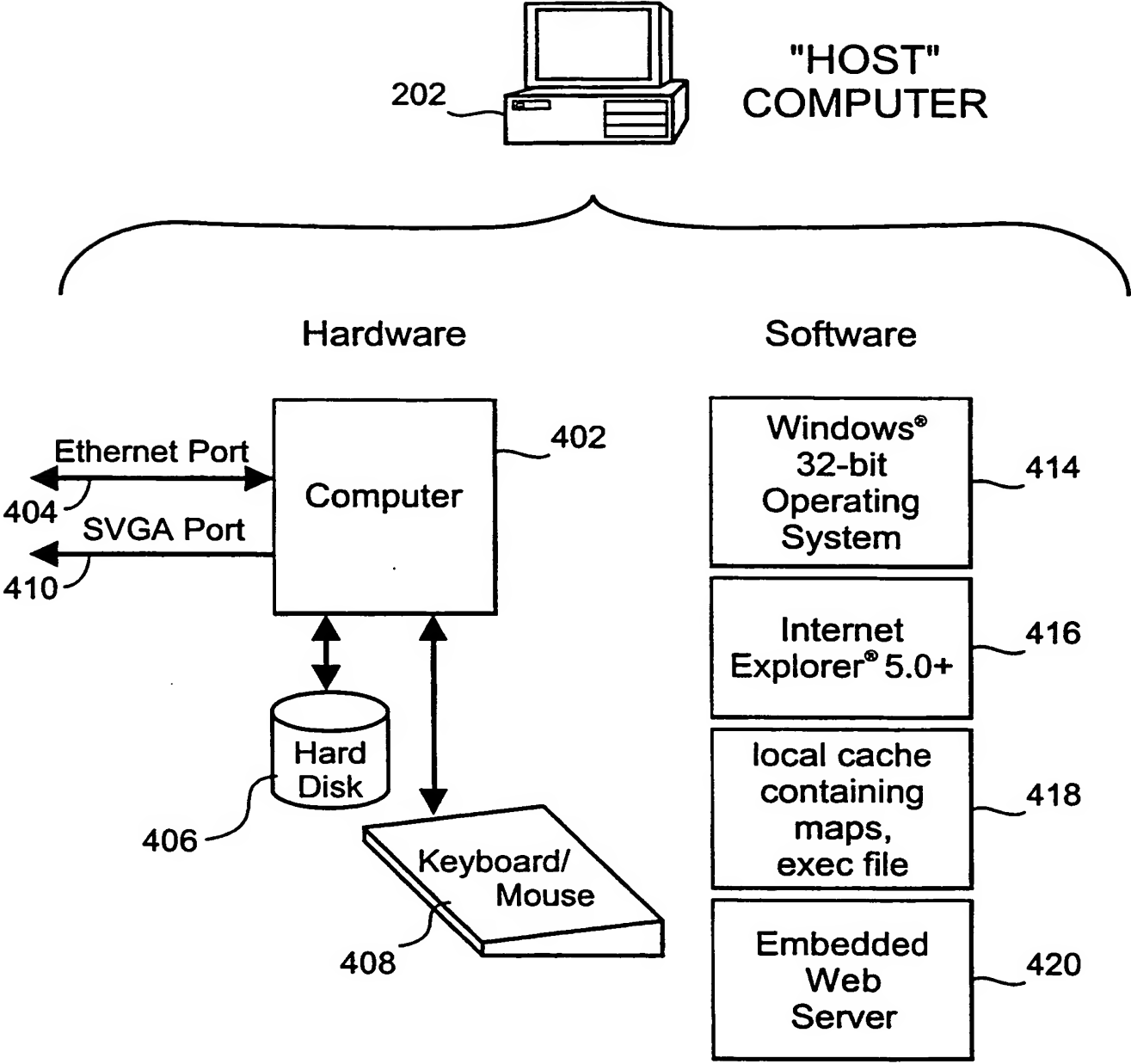


FIG. 4

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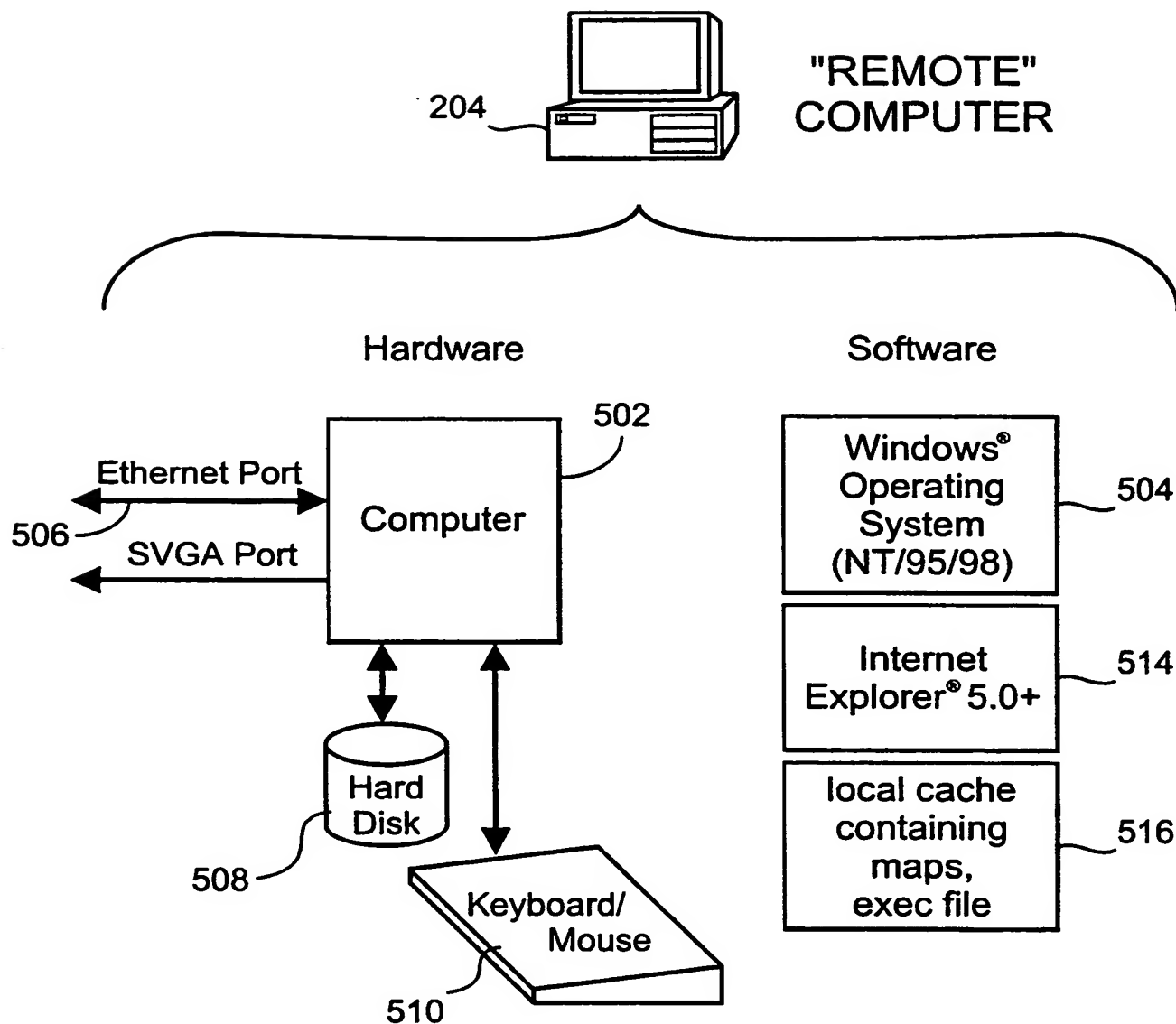


FIG. 5

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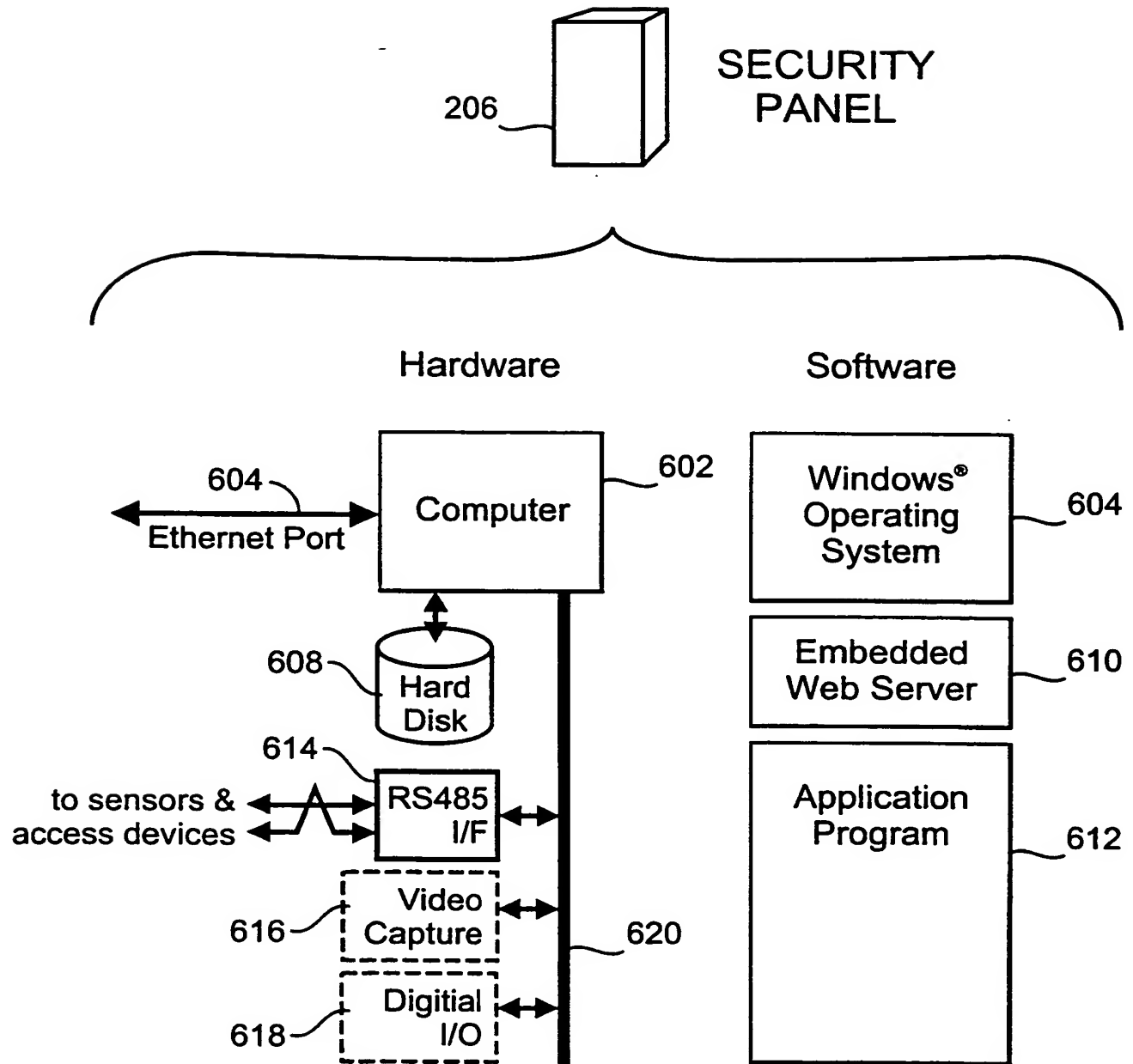


FIG. 6

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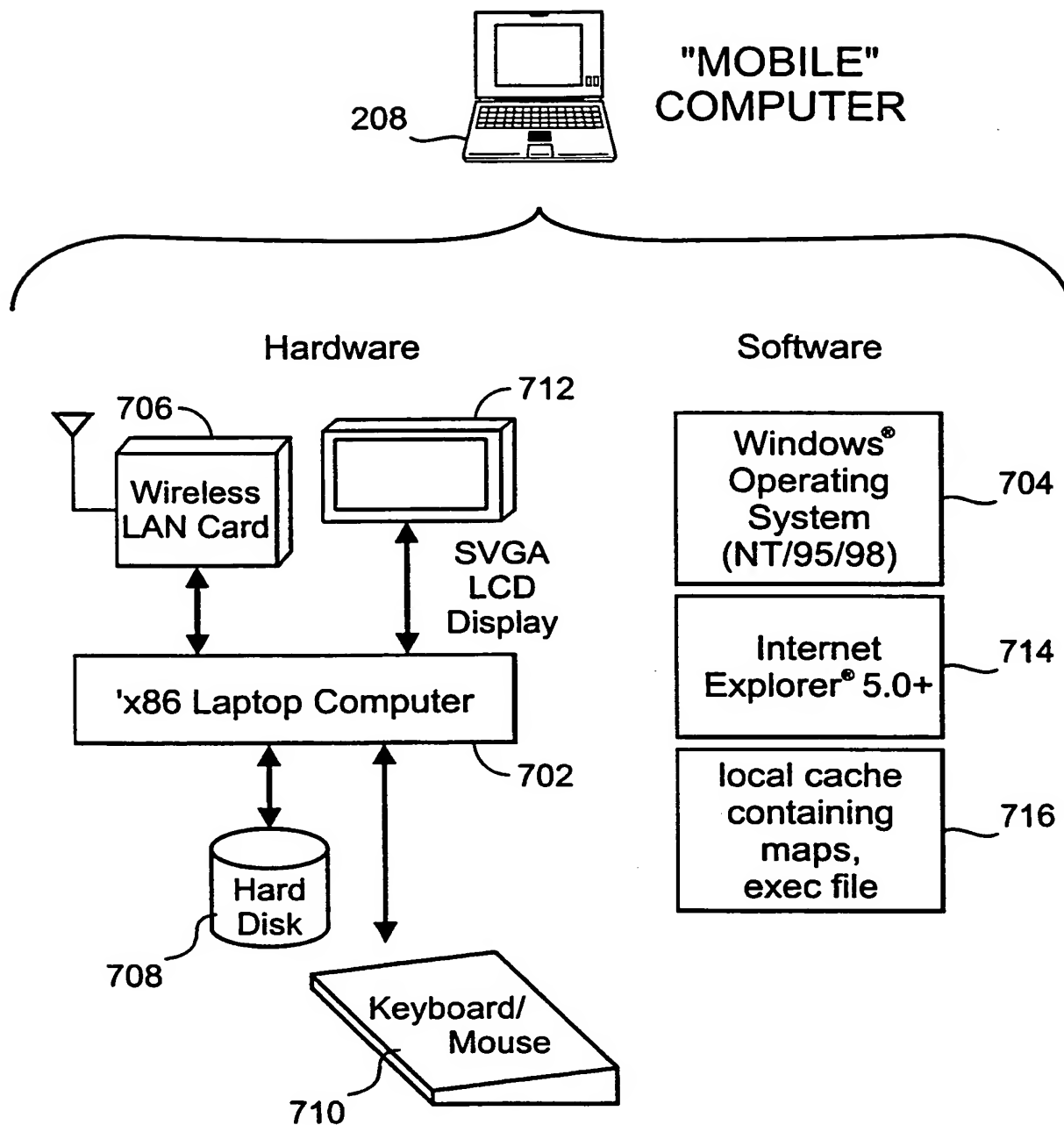


FIG. 7

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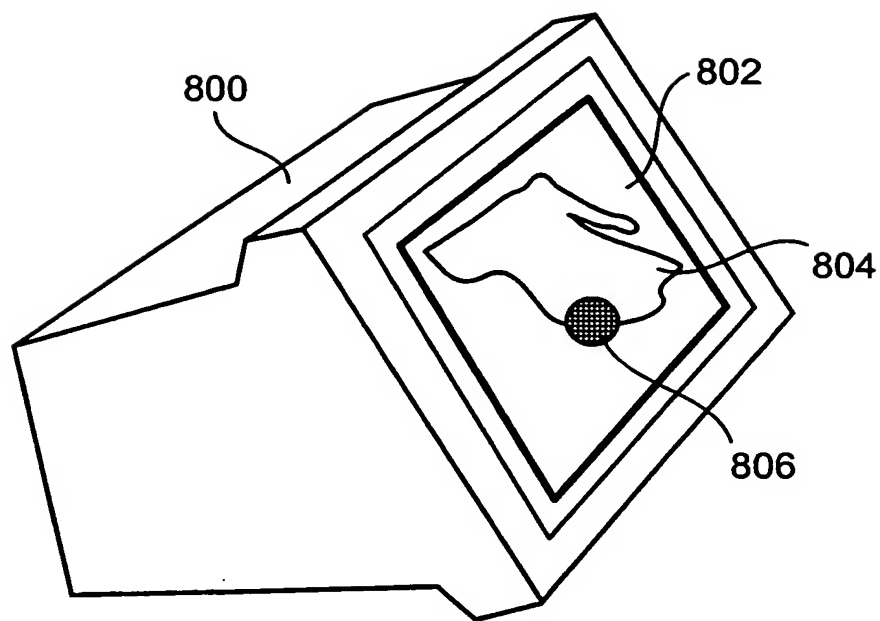


FIG. 8

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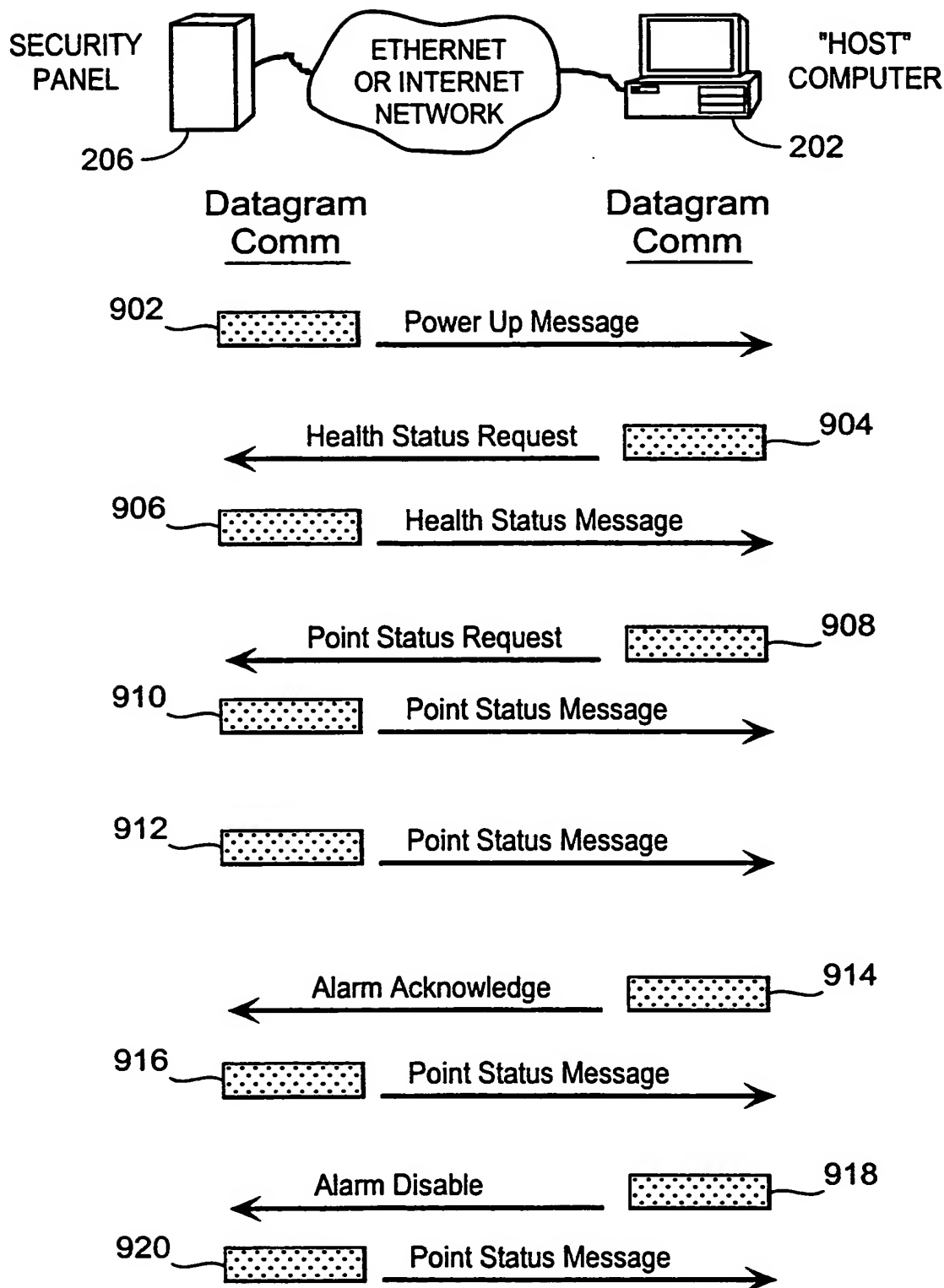


FIG. 9

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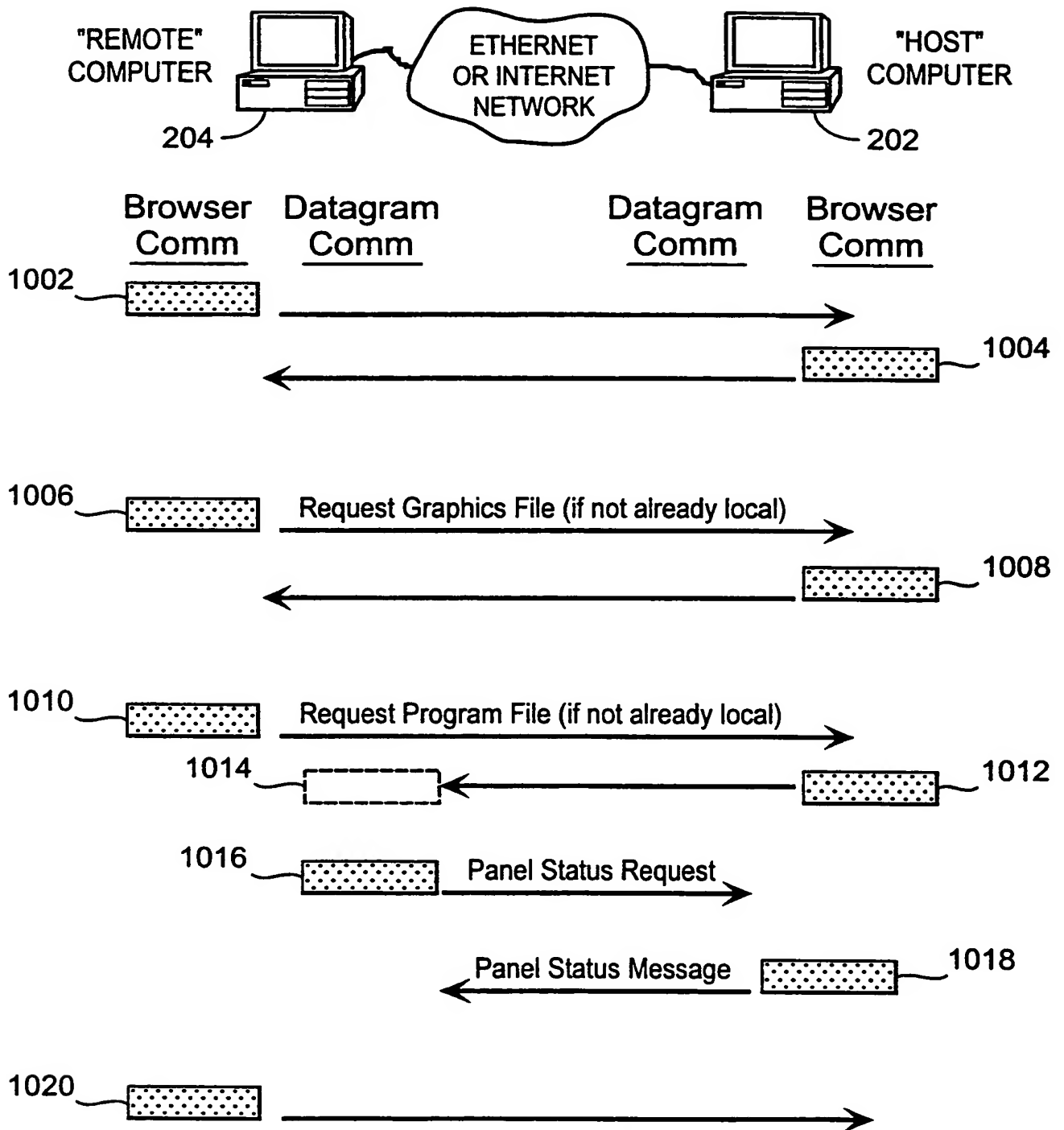


FIG. 10

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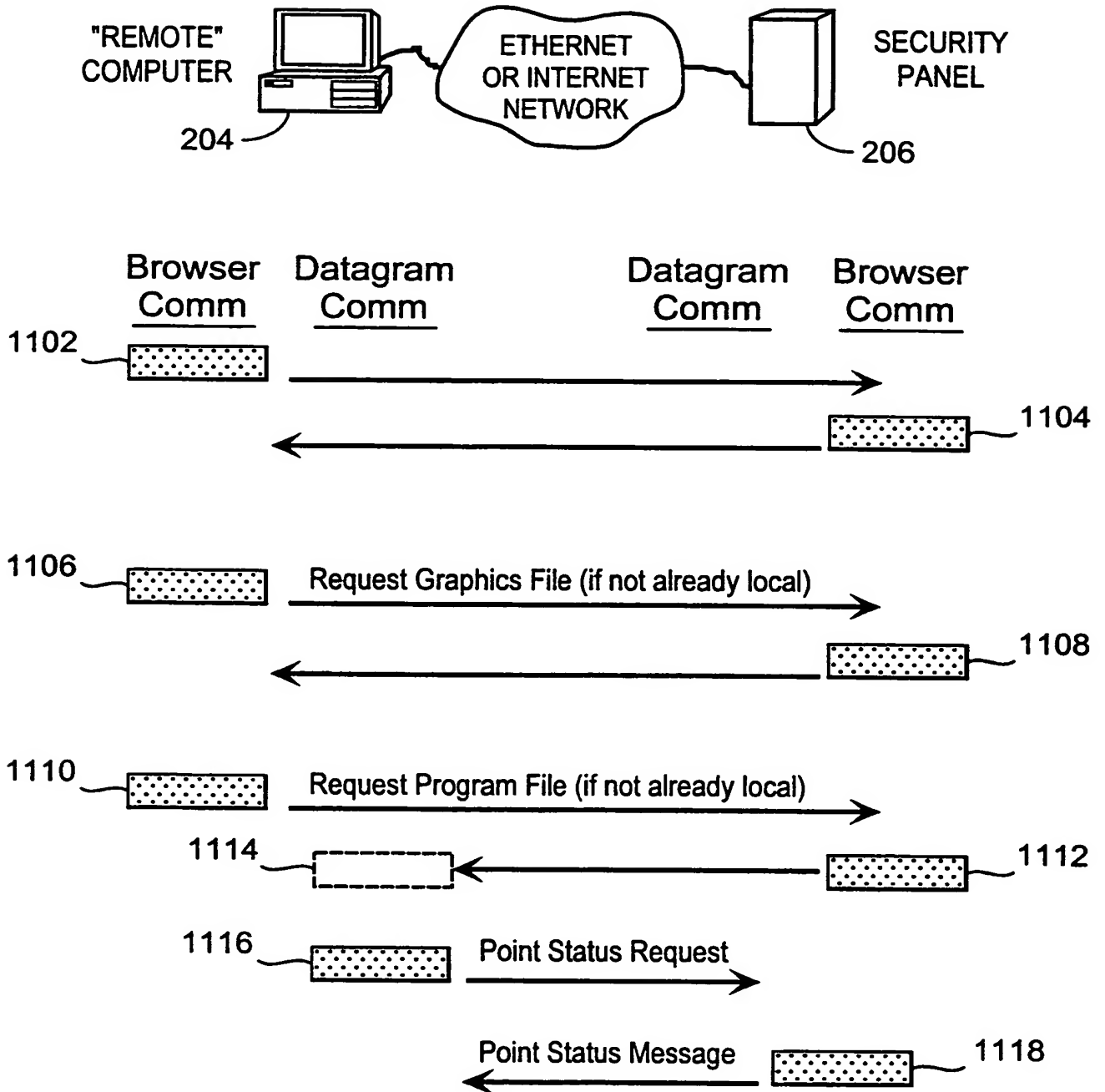


FIG. 11

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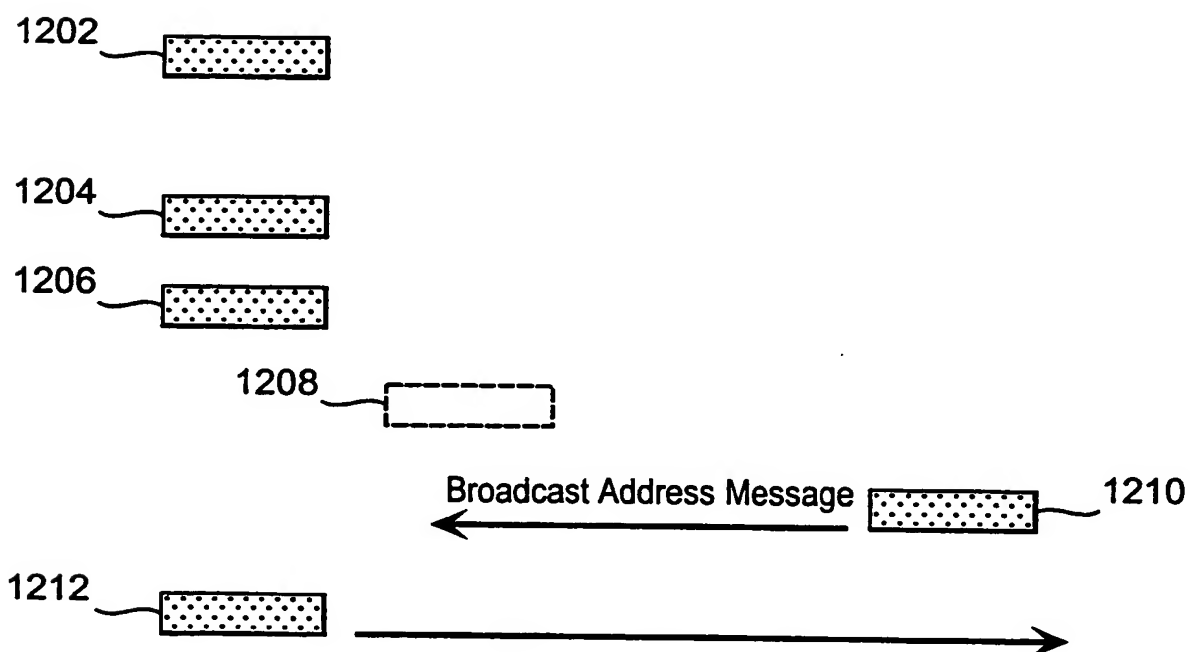
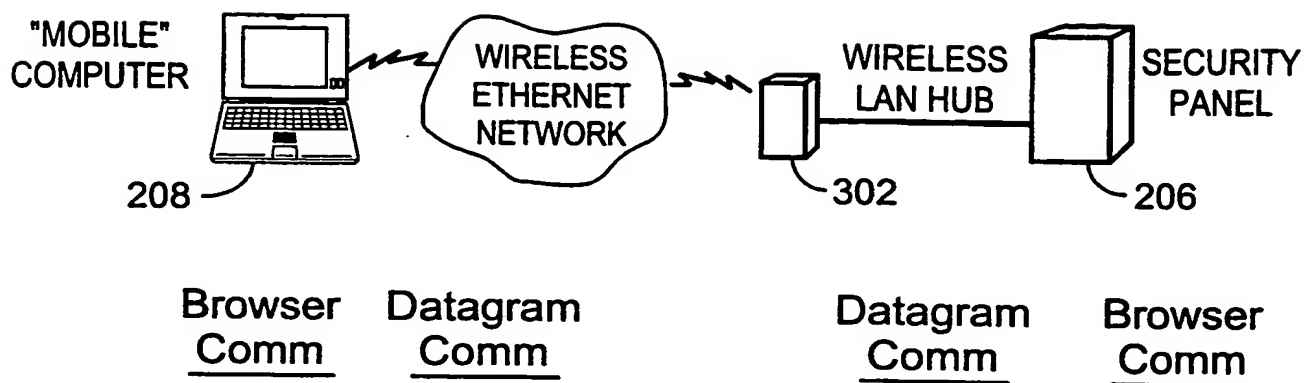


FIG. 12